

Examining Antecedents and Outcomes of Electronic Word-of-Mouth Adoption: An Empirical Study of Tokopedia Users

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Abstract. This study analyzed factors influencing eWOM information adoption of 211 Tokopedia users. Based on ELM and social influence theories, an eWOM research model was developed and tested using PLS-SEM. Key findings were that expertise, trustworthiness, objectivity, argument quality and information usefulness positively affected eWOM information adoption. Practical and theoretical implications include providing recommendations for Tokopedia to enhance review credibility and establish guidelines for e-commerce websites to facilitate informed purchase decisions. As one of the first studies to holistically examine eWOM antecedents and consequences in Indonesia's rapidly growing e-commerce sector from the lens of Generation Y users, it contributes to advancement of theory and practice in this domain.

Keywords: electronic word of mouth, marketplace, partial least square.

1. Introduction

Electronic business, as defined by Wibowo (2016), is the use of the internet in business to apply business tactics, such as sales and purchases, rather than only as a means of electronically transferring information. Electronic commerce, or e-commerce, is an online channel accessible to anyone with a computer. Businesspeople use it to conduct business, and consumers use it to get information with the help of computers. Information services are first offered to customers to help them make decisions (Kotler & Armstrong, 2012). E-commerce is the buying and selling of goods and services over electronic platforms such the internet, computer networks, radio, and television (Wong, 2010). E-commerce platforms enable businesses without physical locations to conduct transactions at any time, anyplace, with the flexibility to do so (Nanehkaran, 2013). The diversity of alternative products and brands that are offered is growing along with the number of businesspeople and the speed at which technology is developing. Accordingly, customers frequently start their search for references by looking through community opinions regarding a similar product (Riyandika et al, 2013). Tokopedia was chosen as the first choice of online shopping with 66% of the votes, followed by GO-JEK and Bukalapak 59% and 43% respectively. Tokopedia itself has also been named the top shopping app in Indonesia, followed by Shoppe and Bukalapak in the second and third position respectively by the AppAnnie mobile application analysis company through its annual report 2017 Retrospective: A Monumental Year for the App Economy (Tokopedia, 2018). The decision-making process for a purchase, according to Keller & Kotler (2016), starts when customers become aware of their demands and problems and show an interest in learning more about the purchases they plan to make. A growing number of people are entering the business world, and as technology advances quickly, so are the alternative products and brands that are accessible. Thus, customers frequently search for references by reading what other people in the community have to say about a product (Riyandika, 2013). Word-of-mouth (WOM) communication is the process of recommending a product or service to others, both individually and in groups, with the goal of providing firsthand information (Koller dan Keller, 2012). According to Hasan (2010), word-of-mouth marketing is the most effective way to get goods or services in front of two or more people. Before consumers choose to purchase a good or service, electronic word-of-mouth has an impact on their behavior, claim Jiménez & Mendoza (2013). E-WOM communication is the term for comments—positive or negative—made by prospective, real, or past customers regarding goods or businesses that are accessible to a large number of individuals and organizations via the Internet (Jalilvand et al, 2011). One of the key informational sources that influence consumers' purchase decisions is e-word-of-mouth (eWOM). Customers can utilize one of the product reviews as information to help them decide what to buy (Jie et al, 2016); (Ibrahim & Wella, 2020).

The Partial Least Square (PLS) approach is another tool that is used to support this research. Imam (2011) claims that PLS is one technique that can address the issue of calculating the satisfaction index since it does not impose stringent assumptions on the distribution of changes in observations or the sample size, which is quite small. The purpose of this study is to determine what factors, specifically in the Tokopedia marketplace, which can control to affect the acceptance of information against Generation Y. Generation Y is the largest online consumer group globally, making their online shopping behavior highly impactful (Gurunathan, & KS, 2023). Generation Y is a desirable user group for eWOM information since they are well-known for being proficient in technology and for relying extensively on social media for communication and information (Daowd et al, 2021). Studying electronic word-of-mouth adoption in Tokopedia among Generation Y can provide valuable insights for researchers and businesses to improve user experience, marketing strategies, and understanding of e-commerce behaviour in the region. According to the explanation provided, there are a number of reasons why reviews of products on the market, particularly on Tokopedia, can raise concerns. There are reviews, both good and bad, for every product listed on Tokopedia. Research conducted by Li et al, (2021) indicates that User-Generated Content (UGC), such as electronic eWOM, has a substantial impact on purchasing choices. Examining Tokopedia users can shed light on how generation Y in Indonesia

depends on eWOM on the platform and enhance comprehension of user-generated content's impact on e-commerce decision-making. Given the widespread dissemination of false information on the internet, it is essential to comprehend the factors that impact the acceptance of electronic word-of-mouth. This study aims to enhance the creation of predictive models that can determine how generation Y users discern between credible and untrustworthy electronic word-of-mouth, addressing a present knowledge gap. This research aims to analyse how generation Y users on Tokopedia adopt eWOM by utilising the Elaboration Likelihood Model (ELM) and Social Influence theories. It will investigate how these users absorb information, evaluate online opinions, and decide on purchases. This may result in enhancements and expansions of these established theories within the realm of online shopping behaviour. This study approach overcomes mere description of eWOM adoption by integrating the ELM and Social Influence theories. The study explores the reasons behind user behaviour, providing useful insights into the cognitive and social variables that affect how generation Y users in Indonesia assess and use electronic word-of-mouth information on Tokopedia. This can greatly enhance academic understanding and provide practical benefits for enterprises in the thriving Indonesian e-commerce market. This is not the first research to be done on the subject. Numerous studies focus on related subjects. Nonetheless, the researchers felt that this study stood out from others since it examined the impact of electronic word-of-mouth on the uptake of information, which led them to focus on Tokopedia, one of Indonesia's biggest e-commerce sites.

2. Literature Review

Word-of-mouth (WOM) communication is the process of recommending a product or service to others, both individually and in groups, with the goal of providing firsthand information (Koller dan Keller, 2012). According to Hasan (2010), word-of-mouth marketing is the most effective way to get goods or services in front of two or more people. The internet has evolved to become a platform for communication that helps people share information, voice ideas, and create word-of-mouth (E-WOM) communication (Jalilvand et al, 2011).

2.1. Expertness

Expertness refers to professional knowledge (professional knowledge) that is owned by communicators regarding a review of a product or service (Vania et al, 2015). Expertise covers relevant fields such as knowledge, trust, and experience which can indicate that someone has more knowledge in providing good information (Park & Lee, 2009). The extent to which someone is thought to have knowledge, abilities, or experience and is therefore regarded as a reliable source of information is known as their level of expertise. This element may also serve as a review mechanism; the more suggestions used, the better the outcomes (Saleem & Ellahi, 2017).

Therefore:

Hypothesis 1: There is a positive relationship between expertness and perceived risk.

2.2. Trustworthiness

The degree of customer trust and acceptance of previous product or service reviews on a certain platform are discussed in this section (Vania et al, 2015). One's perspective can be influenced by various factors, such as the exposure to well-organized and truthful material, which can boost one's faith in written evaluations (Yoo & Gretzel, 2009; Reichelt & Jacob, 2014; Pan & Chiou, 2011). According to Dimitrakos (2012), trustworthiness is defined as the credibility of the information source and is closely linked to the sender's objectivity and level of trust. Consumers develop a generalized trust among themselves when they communicate with one another on social networking sites, not connections. Trust plays a crucial part in the development of electronic word-of-mouth (Hsu & Tran, 2013).

Therefore:

Hypothesis 2: There is a positive relationship between trustworthiness and perceived risk.

2.3. Objectivity

Objectivity is objectively like emotions from consumers, unusual events such as natural disasters or strikes and bias often occur. If the available column of comments can be filled in by consumers, it allows reducing risk and can increase trust because some individuals tend to bind themselves to others (Behrens, 2014). Objectives are people who often give their beliefs to sources of information according to the objectivity of content that can have an impact on bias and influence judgment (Wu, 2013). The term "objectivity" describes the reviewers' feelings, odd occurrences, and prejudice. Written evaluations or remarks may lessen the sense of danger and have a good impact on honesty. The term "homophile" describes the nature of relationships. It increases the well-being of personal correspondence while reducing susceptibility (Hussain et al, 2017).

Therefore:

Hypothesis 3: There is a positive relationship between objectivity and perceived risk.

2.4. Percieved Risk

In essence, individuals will attempt to control the consequences if things don't go according to plan, therefore look for alternatives, including obtaining information from a variety of sources, to lower risk and improve decision-making around items (Zhang et al, 2011). As a thorough assessment of the losses resulting from a product, perceived risk is determined by analyzing customers' primary information regarding the rational and emotional implications of using a product or service (Ling et al, 2011). Word-of-mouth recommendations have been shown to be a valuable source of information for reducing risk perception. A number of factors influence the impact of perceived risk on the level of involvement in the purchase choice and the satisfaction of previous purchases (Ilknur & Zoghi, 2017). Thanks to technical improvements, face-to-face conventional word-of-mouth has transformed into electronic word-of-mouth, which has grown in influence. Numerous research have examined how source credibility affects how danger is perceived. The degree to which recipients believe their sources is known as source credibility. Jafar et al, (2017).

Therefore:

Hypothesis 4 & 5: There is a positive relationship between perceived risk and argument quality, perceived risk and information usefulness.

2.5. Argument Quality

Since the argument quality is expressed as a factor that receives information based on validity assessment throughout systematic processing, the quality of perception may be higher or lower. Information is systematically adopted when there is a strong argument; the adoption process may take longer when there is a weak argument (Ayu & Yasa, 2017). The following criteria can be used to evaluate an argument's quality (Cheung & Thadani, 2010):

- Relevance refers to the extent to which messages or information can be applied and are useful in the decision-making process,
- Actuality, related to whether the message is yet to be exact and current,
- Completeness refers to the ability of information to complete the needs of users, has the required values, and information has sufficient depth and breadth.

According to (Pam, 2013) the level of quality of an argument can be measured from the extent to which the argument can be given and can convince others that what is said is true.

Therefore:

Hypothesis 6: There is a positive relationship between argument quality and information adoption.

2.6. Information Usefulness

Information can be used for certain goals based on people's views of its usefulness, which is determined by how they use it. When people believe that obtaining knowledge might be beneficial, they are more likely to be involved in it. People will find E-WOM information on a platform and carry out the adoption

of that information if they think it is useful (Chu & Kim, 2011). Information is something that can be relied upon as well as being evidence that can potentially influence someone's decision (Scott, 2009). Information usefulness can be defined as perceptions of usefulness positively influencing the acceptance of Ewom information. It has been discovered that the usefulness of information has a strong and significant impact on consumer decisions to adopt information in the online community (Cheung & Thadani, 2010).

Therefore:

Hypothesis 7: There is a positive relationship between information usefulness and information adoption.

2.7. Extremism

This section is part of the rating that is generally given by consumers that is ambiguous, it might cause consumers to feel confused and increase the difficulty of making purchasing decisions (Qiang, et al., 2016). In general, the rating given by consumers will provide more assistance to support written reviews so as to reduce the feeling of consumer uncertainty by providing a predetermined scale (Ichsan et al, 2018). The rate of extremism for online platforms or e-WOM items is incredibly positive. A product or service's likelihood of being purchased is impacted when a sizable portion of consumers give it good ratings. Examining other people's ratings of e-WOM is one of the most well-established methods of determining its value (Menendez et al, 2019).

Therefore:

Hypothesis 8: There is a positive relationship between extremism and information adoption.

2.8. Volume

A large number of consumers who conduct a review of an item or service can affect the sale of goods (Vania et al, 2015). Volume is a measurement element that states how many words of mouth occurs or can be analogous to frequency, namely how often people talk about or recommend products/services (Hermawan, 2017). The total number of recommendations in the sample is measured by electronic word-of-mouth volume. Recommendation rating is crucial for managing an organization's online reputation since it gauges a company's average quality based on user reviews on the platform (Menendez et al, 2019).

Therefore:

Hypothesis 9: There is a positive relationship between volume and information usefulness.

2.9. Information Adoption

When explicit information is transformed into internalized knowledge and meaning, it enters the knowledge transmission stage known as information adoption (Li C. Y., 2013). Adoption of information is crucial when making judgments based on the strength of a product's or service's arguments (Safdar et al, 2017). A scale established in earlier research was employed to gauge consumer uptake of information. The process of internalizing information, which involves people accepting knowledge from outside sources to broaden their understanding or make better decisions, is taken into account by information adoption (Shen et al, 2014). Information adoption considers the internalization stage, in which individuals absorb knowledge from external sources to hone their judgment or expand their knowledge base. People are influenced by information from others and see it as reliable proof of reality, therefore it can be seen as a type of informational impact. Accordingly, people's evaluation of the information may be primarily influenced by informational elements, such as those pertaining to the material itself and its sources (Duan, Gu, & Whinston, 2009).

The research hypothesis is based on previous research models.

Table 1: Previous research hypothesis

	Description	Author
H1	Expertness affects the Perceived Risk	(Safdar et al, 2017)
H2	Trustworthiness affects the Perceived Risk	(Safdar et al, 2017)
H3	Objectivity affects the Perceived Risk	(Safdar et al, 2017)

	Description	Author
H4	Perceived Risk affects the Argument Quality	(Safdar et al, 2017)
H5	Perceived Risk affects the Information Usefulness	(Safdar et al, 2017)
H6	Volume affects the Information Usefulness	(Qiang, et al., 2016)
H7	Extremism affects the Information Usefulness	(Qiang, et al., 2016)
H8	Argument Quality affects the Information Adoption	(Safdar et al, 2017)
H9	Information Usefulness affects the Information Adoption	(Safdar et al, 2017)

3. Methodologies

3.1. Data Collection

Collecting data using a questionnaire administered over approximately one month using Google Forms and a purposive sampling technique. 221 individuals participated in the questionnaire, and most of them adhered to the given parameters. This technique's disadvantage is the potential risk of mistakenly eliminating important subgroups, which may result in biased findings that cannot be applied to the whole Tokopedia user base. The selection procedure depends on the researcher's judgement, which may lead to unintended biases due to preconceived ideas or restricted criteria. The findings may lack generalizability to the entire Tokopedia user community because of the non-random sample method. Although purposive sample has drawbacks, surveying Tokopedia users is nevertheless a suitable strategy for various reasons. By focusing on Tokopedia users, data may be collected that is directly relevant to the platform's user base and their electronic Word-of-Mouth (eWOM) adoption behaviour within that unique environment. Tokopedia users are easily available for research and their replies immediately contribute to the study's goal of comprehending eWOM usage on the platform. Surveys can collect a wide range of data, such as opinions, motivations, and specific electronic eWOM usage patterns, offering significant insights that go beyond demographics.

3.2. Scale

It was clarified that instruments are used by researchers to gather data in quantitative research. Each instrument needs to have a scale in order to generate precise quantitative data, as this one will be used to measure the values of the variables under study. A measurement scale makes it possible to express a variable's value, as measured by a specific instrument, as numbers, which improves accuracy, efficiency, and communication. As a result, this study employs the likert scale as a scale of measurement for each instrument variable (Sugiyono, 2017). One method for assessing the attitudes, beliefs, and perceptions of an individual or a group on social issues is the Likert scale. The five Likert scale points used in this study (Sugiyono, 2017) represent values as follows:

1. Strongly disagree, given a score of 1
2. Disagree, given a score of 2
3. Rather agree, given a score of 3
4. Agree, which is given a score of 4
5. Strongly agree, given a score of 5

After the instrument is developed in the form of a scale, an instrument is tested data obtained from the instrument cannot be directly processed for testing hypotheses, but must first be tested to find out whether the data is suitable for use or not (Sugiyono, 2017).

3.3. Tools

The following table describes the comparison of the SEM and PLS methods in Table 2.

Table 2: Comparison of SEM and PLS

Criteria	CB-SEM	PLS-SEM
Research Objectives	To test or confirm a theory	To develop or build a theory
Approach	Based on variance	Based on covariance
Estimation Method	Least Square	Maximum Likelihood

Model Evaluation and Data Normality Assumption	It does not require that the data be normally distributed and parameter estimation can be done directly without goodness-of-fit requirements.	Requires data to be normally distributed and meet goodness-of-fit criteria before estimating parameters.
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Although partial least squares is used to confirm theory, it can also be used to explain whether or not there is a relationship between latent variables. Partial least squares can simultaneously analyze constructs formed with reflexive indicators and formative indicators and this is not possible to carry out in a structural equation model (SEM) because an unidentified model will occur. So this research carried out tests using the partial least squares method. This research will use techniques/methods from partial least squares because this method can test model hypotheses measured at the construct or latent variable level and develop theories (Willy & Jogiyanto, 2016). For PLS itself, you can research models that have many constructs and indicators (Sugiyono, 2017). The data used alone includes a small amount for analyzing a research model (Kwong & Wong, 2013). In path analysis for structural equation modeling with partial least squares (SEM-PLS), there are two models, namely the inner model and the outer model. The inner model shows the relationship between latent variables and the outer model shows the relationship between manifest variables and latent variables (Narimawati & Jonathan, 2017).

4. Data Analysis and Result

After conducting the data collection stage, then do data cleaning to ensure the data used is in accordance with the conditions that have been determined and meet the criteria. Based on the data that has been obtained, part of the data is in accordance with the requirements. But there are 11 data that are not used because they are not in accordance with the conditions. Consequently, 200 respondents' worth of data will be employed in this investigation. From the data for the male sex, there are more than women. The number of respondents from male sex was 103 people while for women as many as 108 people. From this data, we can see that the number of respondents is almost the same. From these data for respondents, aged 18-30 are more dominant than others. The number of respondents aged 18-30 was 206 respondents. For ages 31-40 as many as 3 people, 41-50 as many as 1 person, and for 51 and above as many as 1 person. From these data, it can be seen that most respondents have S1 education with 162 respondents. For other levels of education, such as high school as many as 35 respondents, S2 as many as 2 respondents and diplomas as many as 12 respondents.

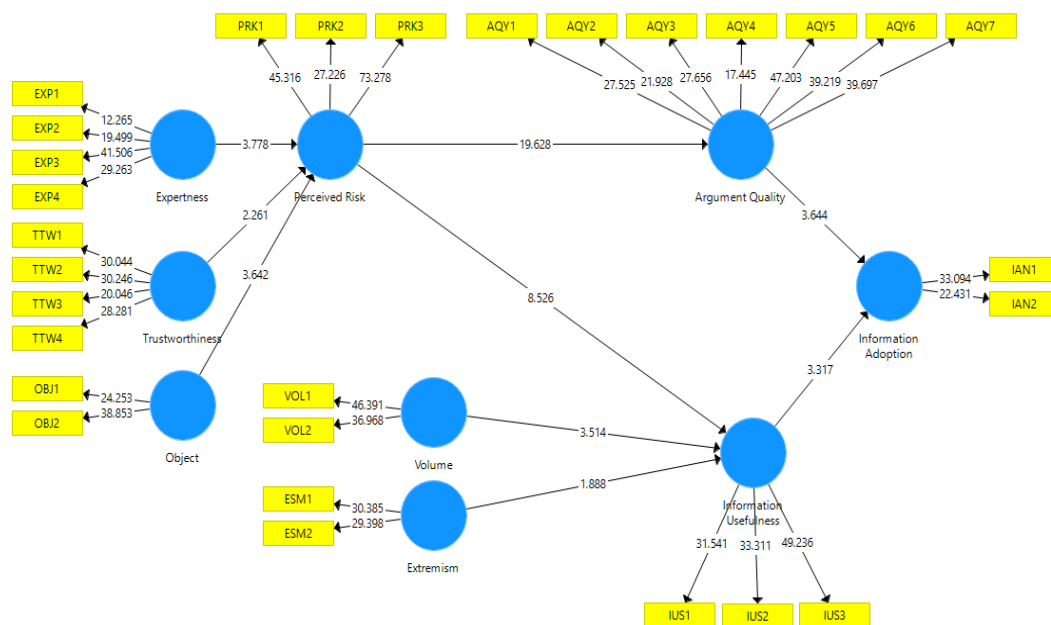


Fig. 1: Research model

The model's structure is derived from the model that was initially established in this investigation. Expertise, objectivity, perceived risk, quality argument, information adoption, information utility, volume, and extremism are the nine constructs. Ms. tools will be used to prepare and clean the data. The partial least squares approach will be used to test Excel one more time. Smart PLS tools will support research data using the PLS approach. 3.2.8. The purpose of smart PLS is to evaluate the correlations between the variables in a predefined research model. Validity and reliability will now be examined for every indicator.

4.1. Outer Model Analysis

At this stage, validity and reliability will be tested on each indicator.

1. Validity Test. If an indicator's loading factor against the intended construct is greater than 0.5, it is considered valid. The loading factor yields a value greater than the suggested threshold of 0.5. Examining the average variance extracted (AVE) value square root is another way to assess discriminant validity. A value above 0.5 is advised (Hair et al, 2014). SmartPLS output for loading factor gives the following results:

Table 3: Outer loading

	AQY	EXP	ESM	IAN	IUS	OBJ	PRK	TTW	VOL
AQY1	0.789								
AQY2	0.773								
AQY3	0.808								
AQY4	0.747								
AQY5	0.864								
AQY6	0.864								
AQY7	0.866								
ESM1			0.855						
ESM2			0.85						
EXP1		0.698							
EXP2		0.795							
EXP3		0.855							
EXP4		0.838							
IAN1				0.844					
IAN2				0.826					
IUS1					0.869				
IUS2					0.847				
IUS3					0.895				
OBJ1						0.829			
OBJ2						0.865			
PRK1							0.883		
PRK2							0.828		
PRK3							0.924		
TTW1								0.811	
TTW2								0.822	
TTW3								0.78	
TTW4								0.814	
VOL1									0.892
VOL2									0.872

In Table 3, validity testing for reflective indicators uses the correlation between item scores and construct scores. Measurement with reflective indicators shows a change in an indicator in a construct if other indicators in the same construct change (or are removed from the model). Reflective indicators are suitable for measuring perceptions, so this research uses reflective indicators.

2. Reliability Test. Examining the composite reliability value of the indicator block that gauges the build is how reliability testing is carried out. If the composite reliability findings are higher than 0.7, a satisfactory number will be displayed. According to Hair et al, (2014), 0.5 is the

minimum acceptable value for Cronbach's Alpha. The following are the composite reliability values at the output:

Table 4: Composite reliability

Variables	Composite Realibility
Argument Quality	0.933
Expertness	0.875
Extremism	0.842
Information Adoption	0.822
Information Usefulness	0.904
Objectivity	0.835
Perceived Risk	0.911
Trustworthiness	0.882
Volume	0.875

Table 4 shows that the composite reliability value for all constructs is above 0.7, which indicates that all constructs in the estimated model meet the discriminant validity criteria. The lowest composite reliability value is 0.822 in the Information Adoption construct. The reliability test can also be strengthened with Cronbach's Alpha where the SmartPLS output gives the following results:

Table 45 Cronbach's alpha

Variables	Composite Realibility
Argument Quality	0.916
Expertness	0.810
Extremism	0.624
Information Adoption	0.567
Information Usefulness	0.840
Objectivity	0.607
Perceived Risk	0.852
Trustworthiness	0.822
Volume	0.714

The recommended value for the minimum limit for Cronbach's Alpha is not less than 0.5 and Table 5 shows that the Cronbach's Alpha value for each construct is above 0.5. In Table 4 there is the lowest value of 0.567 for Information Adoption.

4.2. Inner Model Analysis

In testing the inner model, there are 2 steps that will be carried out, namely:

1. R-Squared. R-squared results are 0.67, 0.33 and 0.19 for endogenous latent variables in the structural model identify that the models "good", "moderate", and "weak".
2. T-Statistic. If t-statistic > t-table then in the study it can be accepted (5% significance level). If t-statistic < 1.96 it is said to be invalid.
3. Path Coefficient. Standardized Path Coefficient (P Values) < 0.05 then it is said to be significant.

The value in the t-statistic that is produced from the PLS output by comparing the t-table value is the value that is assessed in order to test the hypothesis. An aggregate linear indicator, or latent variable estimation, is the result of the PLS. At a significance level of 5%, the following requirements for hypothesis testing are established as follows:

Hypothesis 1

H1 Expertness affects perceived risk.

Expertise and perceived danger have a substantial association; the t-statistic is 3.926 (> 1.96). The sample estimate's initial value, which is 0.385, is positive. With a p-value of 0.000, the value exceeds the predetermined threshold of 0.05. In order to demonstrate that there is a positive association between perceived risk and expertise. The study's H1 hypothesis, according to which "expertness influences perceived risk," is plausible.

Hypothesis 2

H2 Trustworthiness affects perceived risk.

With a t-statistic of 2.262 (> 1.96), the association between perceived risk and trustworthiness is statistically significant. The initial sample estimate value, or 0.213, is positive. With a p-value of 0.024, the value exceeds the predetermined threshold of 0.05. This indicates that there is a positive association between perceived risk and trustworthiness. It is appropriate to accept the study's second hypothesis, which claims that "Trustworthiness influences perceived risk."

Hypothesis 3

H3 Objectivity affects perceived risk.

T-statistics of 3.738 (> 1.96) indicate that objectivity and perceived risk have a substantial association. The projected sample's initial value, which is 0.327, is positive. With a p-value of 0.000, the value exceeds the predetermined threshold of 0.05. This indicates that there is a positive correlation between perceived danger and objectivity. According to this study's H3, it is appropriate to say that "Objectivity influences perceived risk."

Hypothesis 4

H4 Perceived risk affects argument quality.

There is a strong correlation between perceived threat and argument quality, as evidenced by the t-statistic of 20,719 (> 1.96). The initial value of the calculated sample, 0.756, is positive. The value is greater than the predefined cutoff of 0.05, as indicated by the p-value of 0.000. This suggests that perceived risk and the quality argument are positively correlated. The study's H4 hypothesis, which states that "Perceived risk affects the argument quality," can be accepted.

Hypothesis 5

H5 Perceived risk affects information usefulness.

With a t-statistic of 8.755 (> 1.96), the link between perceived risk and information usefulness is significant. The calculated sample's initial value is positive and equal to 0.521. With a p-value of 0.000, the value exceeds the predetermined threshold of 0.05. This indicates that there is a positive correlation between perceived risk and the utility of the information. It is acceptable to accept study hypothesis H5, which claims that "Perceived risk affects information usefulness."

Hypothesis 6

H6 Volume affects information usefulness.

With a t-statistic of 3.502 (> 1.96), the volume and information usefulness association is significant. The initial value of the estimated sample, or 0.279, is positive. With a p-value of 0.001, the value exceeds the predetermined threshold of 0.05. This indicates that there is a favorable correlation between the volume and usefulness of the material. The study's H6 hypothesis, which claims that "Volume affects information usefulness," is acceptable.

Hypothesis 7

H7 Extremism affects information usefulness.

With a t-statistic of 2.030 (> 1.96), there is a strong correlation between radicalism and the use of the information. With an initial value of 0.140, the estimated sample is positive. With a p-value of 0.043, the value exceeds the predetermined threshold of 0.05. This indicates that there is a positive correlation between radicalism and the utility of knowledge. According to this study's H7 hypothesis, it is permissible for "extremism influences information usefulness."

Hypothesis 8

H8 Argument quality affects information adoption.

T-statistics of 3.719 (> 1.96) indicate a significant link between the quality of the argument and the adoption of the information. The calculated sample's initial value, which is 0.391, is positive. With a p-value of 0.000, the value exceeds the predetermined threshold of 0.05. This indicates that there is a favorable correlation between the quality of an argument and the adoption of knowledge. It is acceptable to accept the study's H8 hypothesis, which claims that "argument quality affects information adoption."

Hypothesis 9

H9 Information usefulness affects information adoption.

The relationship between the usefulness and adoption of information is statistically significant, with t-statistics of 3.385 (> 1.96). With a p-value of 0.001, the estimated sample's starting value of 0.369 indicates that it is positive and over the predefined 0.05 threshold. This suggests that acceptance of information and its usefulness are positively correlated. H9 in this study states that "information usefulness affects information adoption," which is acceptable.

5. Discussion and Conclusion

5.1. Discussion

Based on the research that has been done for the results of testing of the inner model, it can be concluded that:

Hypothesis 1

The expertness variable considerably increases perceived risk, according to test results utilizing the partial least squares method. This is consistent with other research that demonstrates the expertness variable has a favorable impact on perceived risk (Safdar et al, 2017). One factor that has professional knowledge and skills is expertise. competence that is centered on oneself, particularly while reviewing a product (Vania et al, 2015). Additionally, when making purchases, consumers will perceive those who are regarded as professionals as references (Shasha et al, 2014). According to Li et al, (2013), consumers would study prior reviews written by other consumers before making a purchase decision. Customers typically look for information online before making a purchase and base their judgments on information from reviews of products they have seen online. Positive expertness characteristics consequently have an impact on perceived risk variables.

In order to determine whether mediation would improve the relationships between the exogenous variables expertness to argument quality, expertness to information adoption, and expertness to information usefulness, or vice versa, this study also discussed the total indirect effects with the specific indirect effects. There are two different kinds of correlations between the expertness variable and argument quality. The first association has a p-value of 0 and a t-statistic of 4,089, indicating that there is no mediation. A relationship that uses mediation is the second variable in the relationship. The perceived danger variable mediates the expertness variable against argument quality, and the t-statistic is 4,089 with a p-value of 0.000. The p-value and t-statistic both have the same value. Therefore, it may be said that there is a direct or indirect relationship between the expertness and quality argument variables. The expertness variable and information adoption have three different kinds of connections. With a p-value of 0.000 and a t-statistic value of 3.914, the first kind of interaction indicates a link without mediation. Furthermore, the expertness variable for information adoption in the second relationship is mediated by perceived risk and argument quality, as indicated by a t-statistical value of 2.696 and a p-value of 0.007. The third relationship, which is mediated by perceived risk and information usefulness, has an expertness variable on information adoption with a t-statistical value of 2.609 and a p-value of 0.009. Thus, it may be concluded that a direct relationship rather than a mediation relationship exists between the expertness variable and information adoption. There are two different kinds of associations between the expertness variable and information usefulness. The first type of relationship is one without mediation, with a p-value of 0.000 and a t-statistic value of 3,734. Moreover, a t-statistic value of 3,734 and a p-value of 0 000 are found for the second link, which is the expertness variable to information usefulness, mediated by the perceived risk variable. Therefore, it may be said that there is a direct or indirect relationship between the expertness and information usefulness variables. As can be seen, the p-value is 0.001 and the t-statistic for male respondents is 3.255. For female respondents, the p-value is 0.008 and the t-statistic is 2.642. It can be concluded, then, that the relationship between perceived threat and expertise affects males more than women.

Hypothesis 2

The partial least square technique test findings show that perceived risk is highly positively impacted by the trustworthiness variable. This is consistent with other study (Safdar et al, 2017) that

demonstrates the positive relationship between perceived risk and trustworthiness characteristics. Consumer trust and acceptance of previous product or service reviews on a given platform are measured by a variable called "trustworthiness" (Vania et al, 2015). Customers will use an insightful review, particularly for information that will persuade them to buy something (Zhang et al, 2014). Customers will typically rely on other people's reviews. As a result, customer reviews can have an impact on decision-making (Zhao & Wang, 2015). Each person's experience with sharing experiences on a platform might be unique. Through a review site, customers will share their individual experiences, enabling other customers to make decisions based on the reviews. Therefore, perceived risk variables might be positively impacted by the trustworthiness variable.

In order to determine whether mediation would improve the relationships between the exogenous variables trustworthiness to argument quality, expertness to information adoption, and expertness to information usefulness, or vice versa, this study also discussed total indirect effects with specific indirect effects. There are two different kinds of correlations in the link between argument quality and trustworthiness characteristics. The first association, which has a p-value of 0.024 and a t-statistic of 2.262, is one without mediation. With perceived risk variables acting as a mediator, the second association between trustworthiness variables and argument quality has a p-value of 0.024 and a t-statistical value of 2.262. The association between the trustworthiness variable and argument quality can be either direct or mediated, as it is known that t-statistics and p-values have the same value. Three different sorts of relationships exist between the adoption of information and the trustworthiness variable. A relationship without mediation, with a t-statistic of 2.148 and a p-value of 0.032, is the first relationship. The second association has a t-statistic of 1.816 and a p-value of 0.070, and it is mediated by perceived danger and argument quality. The third association, with a p-value of 0.062 and a t-statistic of 1.873, is mediated by perceived risk and information usefulness. Therefore, a direct connection without mediation will improve the trustworthiness variable for information uptake. There are two different kinds of correlations between information usefulness and characteristics that indicate trustworthiness. The first association, which has a t-value of 0.028 and a t-statistic of 2.210, is one without mediation. The perceived risk variable acts as a mediator in the second connection, which has a t-statistic value of 2.210 and a p-value of 0.028. As a result, the t-statistics and p-value values are equal, allowing for either a direct or indirect relationship to be found between the information's utility and the trustworthiness variable. The t-statistic for male responders is 2.683, and the p-value is 0.008. The t-statistic and p-value for female responders are 1.382 and 0.168, respectively. Therefore, it may be said that men are more affected by the link between perceived danger and trustworthiness.

Hypothesis 3

According to the partial least square method test results, perceived risk is highly positively impacted by the objectivity variable. This is consistent with other study (Safdar et al, 2017) that demonstrates the favorable impact of objective factors on perceived risk. Objectivity is a value that relates to the emotions of an individual to an object. For objectivity focuses on something that is a criticism of someone against a product (Behrens, 2014). In consumer online reviews, reviews of these products can have an effect on consumers, so that information will affect consumers, because consumers are indirectly stimulated positively to value these products (Sung et al, 2015). Online review is a matter that must be considered in selling because it can provide influence between customers to influence behavior in assessing (Ahmad et al, 2016). In the review section, consumers will write down their reviews which are supported by emotions that can influence others starting from brand perception and selection (Achar et al, 2016). Therefore, this makes the objectivity variable positively influence perceived risk.

There are two different kinds of associations between the objectivity variable and argument quality. The first form of link, which is unmediated, has a t-statistic of 3.267 and a p-value of 0.001. The second variable connection has a p-value of 0.001 and a t-statistic value of 3.267 because it is the result of mediating perceived risk variables. It is well known that the t-statistic and the p-value are similar.

Therefore, there are two ways to relate changeable objectivity and argument quality: directly and through mediation. Three different forms of interactions exist between the objectivity variable and information adoption. The first type of link, which is unmediated, has a t-statistic of 3.173 and a p-value of 0.002. The second variable association, which has a p-value of 0.013 and a t-statistic value of 2.488, is the mediation of perceived risk and argument quality. With a t-statistic value of 2.211 and a p-value of 0.028, the third variable connection is the result of variable mediation between perceived risk and information adoption. Therefore, it would be preferable if there was no mediation involved in the link between the objectivity variable and information adoption. There are two different kinds of associations between the objective factors and the utility of the information. The first type of relationship, which is not mediated, has a t-statistic of 3.095 and a p-value of 0.002. The second variable has a t-statistic value of 3,095 and a p-value of 0.002, which indicates that the link is through mediation with the perceived risk variable. It is well known that the t-statistic and the p-value are similar. As a result, there are two ways to relate objective variables to the utility of information: directly or through mediation. The t-statistic and p-value for male responders are 1.608 and 0.108, respectively. It is evident that the p-value is 0.000 and the t-statistic is 3.563 for female respondents. Therefore, it may be said that women are more affected by the relationship seen in the objectivity of perceived risk.

Hypothesis 4

The partial least square method test findings show that there is a strong positive relationship between argument quality and the perceived risk variable. This is consistent with other study (Safdar et al, 2017) that demonstrates the favorable impact of perceived risk variables on argument quality. Argument quality is a characteristic that each argument has a different degree of perception. Initiate a dispute between inferior and superior quality (Cheung & Thadani, 2012). Customers will use the persuasiveness of the arguments presented in online product reviews. Strength will be assessed based on how well the information or argument makes sense and how much the information's recipient believes the argument to be true and persuasive (Luo, Luo, Xu, Warkentin, & Sia, 2015). The length of the review is another indicator of the argument's quality. Long reviews will make customers happier (Kim, Maslowska, & Malthouse, 2017).

Tokopedia has a section where users can leave comments about items that have been sold. Other customers will use the reviews left by previous customers as guidance when making selections about what to buy. As a result, it has a favorable effect on the argument quality variable through the perceived risk variable. Three different sorts of relationships exist for the variable relationship of perceived risk of information adoption. The first variable's association, which is unmediated, has a p-value of 0 and a t-statistic value of 9,383. With a t-statistic value of 3.580 and a p-value of 0.000, the argument quality will act as a mediator in the link between the two variables. With a p-value of 0.001 and a t-statistic value of 3.368, information usefulness will mediate the association between the three variables. Therefore, it would be preferable if there was no mediation in the link between the perceived risk variable and information uptake. The t-statistic for male responders is 14.340, and the p-value is 0.000. The t-statistic for female responders is 17,448 and the p-value is zero. It follows that women are more impacted by the link between perceived risk and argument quality.

Hypothesis 5

The partial least square technique test findings show that information usefulness is significantly positively impacted by the perceived risk variable. This is consistent with earlier study (Safdar et al, 2017) that demonstrates the beneficial impact of perceived risk variables on the utility of information. Perceived risk is defined as a thorough assessment of the losses brought on by a product and is the outcome of analyzing customers' primary information regarding the emotional and rational implications of using a product or service (Ling et al, 2011). According to research (Oliveira et al, 2017), user-provided online reviews from e-commerce platforms can be used as a tool for evaluation and have an impact on customer decisions. When purchasing a product, consumers will seek out facts that can aid in their decision-making. There is a strong correlation between perceived risks and word of mouth since

it is a valuable instrument or source of information for lowering harmful risks (Wang et al, 2015). Knowledge will be seen by people as lowering risk, therefore crucial knowledge may contribute to this. By doing research, you can assist them in reaching a conclusion. As a result, perceived risk variables have a positive impact on information usefulness variables. Three different sorts of relationships exist for the variable relationship of perceived risk of information adoption. The first variable's association, which is unmediated, has a p-value of 0 and a t-statistic value of 9,383. With a t-statistic value of 3.580 and a p-value of 0.000, the argument quality will act as a mediator in the link between the two variables. With a p-value of 0.001 and a t-statistic value of 3.368, information usefulness will mediate the association between the three variables. Therefore, it would be preferable if there was no mediation in the link between the perceived risk variable and information uptake. The data for male respondents indicates a t-statistic of 4,291 and a p-value of 0.000. It is evident that the p-value is 0.000 and the t-statistic is 7.567 for female respondents. Therefore, it may be said that women are more impacted by the link between perceived danger and information usefulness.

Hyphotesis 6

The partial least square technique test results show that the volume variable significantly improves the usability of the information. This is consistent with earlier studies (Qiang, et al., 2016) that demonstrate the beneficial impact of the volume variable on the utility of the information. Volume is a measurement element that states how much word of mouth occurs or can be analogous to frequency, namely how often people talk about or recommend products or services (Hermawan, 2017). Consumers will be more interested in a product that has more than usual volume of reviews. Consumers will be more willing to spend their money for products that have a high level of review compared to a product with a low review rate (Yinglu & Jianan, 2016). Customers will be attracted to a greater number of online reviews and can increase an individual's desire (Zhao & Wang, 2015).

The length of a review is considered to attract attention to individuals. Long reviews can influence consumers in making decisions. The level of the number of reviews of a product can affect. Thus, this causes the volume variable to affect the information usefulness variable positively. There are two different kinds of correlations between the variable volume and the adoption of information. The first variable's connection, with a p-value of 0.015 and a t-statistic of 2.334, was not mediated. The second association was found by mediating perceived risk variables, and the p-value was 0.000 and the t-statistic was 3.580. Therefore, if information adoption is mediated, the link between the volume variable and adoption will be better. The t-statistic and p-value for male responders are 1.605 and 0.109, respectively. The data indicates that the t-statistic for female respondents is 4,413 and the p-value is 0.000. Therefore, it can be said that women are more impacted by the relationship found in the volume of meaningful information.

Hyphotesis 7

The partial least square technique test results demonstrate that the extremism variable significantly increases the usefulness of the information. This is consistent with other study (Qiang et al., 2016) that demonstrates the positive relationship between extremist factors and information usefulness. Extremism is a variable that explains the rating given by consumers. In general, the rating can provide more assistance to support written reviews so as to reduce consumer uncertainty by providing a predetermined scale (Ichsan et al, 2018). In consumer online reviews there are ratings that can help consumers buy a product. Consumers will be very concerned about the strength, ranking and consistency of recommendations in evaluating the credibility of the e-WOM review. Furthermore, credible arguments regarding the products to be purchased can affect the buying intention of these consumers in a positive way (Ahmet & Mehmet, 2017). Ratings on products have a direct impact on consumers who see them. Consumers will be more interested in a rating with a high category (Ashby et al, 2015). A high rating will be a factor that will be considered by consumers. Consumers will be more interested in a product that has a high rating level than a low rating level. Thus, this causes the extremism variable to positively influence the information usefulness variable.

There are two different kinds of correlations that exist between adoption of information and extremism factors. The first variable's association is not mediated, as indicated by its t-statistical value of 1.417 and p-value of 0.157. The second variable's association with the mediating information usefulness factors was then examined, yielding a p-value of 0.157 and a t-statistic value of 1.417. Since t-statistics and p-values are known to have similar values. Therefore, there are two ways to relate the extremism variable to information adoption: directly and through mediation. The data for male respondents indicates a t-statistic of 3.622 and a p-value of 0.000. The t-statistic and p-value for female responders are 0.675 and 0.500, respectively. Therefore, it may be said that men are more affected by the relationship between extremism and the utility of knowledge.

Hypothesis 8

The partial least square method test findings demonstrate that the argument quality variable significantly increases the acceptance of information. This is consistent with other study (Safdar et al, 2017) that demonstrates the favorable impact of the argument quality variable on the adoption of information. Information adoption is a variable that explains the stage of knowledge transfer, where explicit information is transformed into internalized knowledge and meaning (Li C. Y., 2013). Consumers tend to adopt reviews from a particular source with high argument quality and the information taken is also credible (Shen et al, 2014). The quality of information from reviews will always be used in adopting information. The information adopted itself has been trusted to be able to assist in the decision making process (Soenarno et al, 2015).

Tokopedia provides a review feature that can be utilized by consumers. Consumers will freely review the product and other consumers will adopt information that has been written previously to become information that can help in making decisions. Thus, this causes the argument quality variable to affect the information adoption variable positively. For the relationship of the quality argument variable to information adoption it does not have indirect effects and specific indirect effects because this relationship has only one main relationship. For male respondents, it can be seen that the t-statistic is 3.270 and the p-value is 0.001. For female respondents, it can be seen that the t-statistic is 1.969 and the p-value is 0.049. Thus, it can be concluded that the relationship contained in the argument quality of information adoption affects men more.

Hypothesis 9

The information usefulness variable significantly positively affects information adoption, according to test results utilizing the partial least square approach. This is consistent with other research that demonstrates the information usefulness variable has a favorable impact on information adoption (Safdar et al, 2017). The variable of information usefulness elucidates people's judgments of the information's ability to be employed for specific objectives. When people believe that obtaining knowledge might be beneficial, they are more likely to be involved in it. If people believe eWOM material is helpful, they will find it on a platform and adopt it (Chu & Kim, 2011). The usefulness of the information is thought to influence consumer purchasing. Purchase intentions are more common among consumers that participate and use eWOM information (Cheung & Thadani, 2012). According to Cheung et al, (2014), this indication also serves to improve product understanding, facilitate easier and more effective decision-making, and inspire decision-making.

Tokopedia offers a platform for conducting reviews that customers can utilize. Through the usage of these features, users can quickly accept helpful knowledge. As a result, information adoption is positively impacted by the information usefulness variable. Because there is just one major relationship in the relationship between variable information usefulness and information adoption, there are no distinct indirect effects or indirect effects at all. The t-statistic is 2.078 and the p-value is 0.038 for responders who are male. The t-statistic for female responders is 2.700, and the p-value is 0.007. Therefore, it can be said that women are more impacted by the relationship found in the information utility of adoption. The information adoption variable has a value of 0.515, the information usefulness variable has a value of 0.702, the perceived risk variable has a value of 0.653, and the argument quality

variable has a value of 0.572, according to the results of the r-square test in this study.

Overall

The survey found that significant variables influencing eWOM adoption by Generation Y Tokopedia users include a strong reliance on eWOM for purchase decisions, with user reviews being more influential than influencer endorsements. The results emphasise the significant impact of electronic word-of-mouth (eWOM) on influencing the behaviour of Generation Y users on Tokopedia. Our research supports the findings of Safdar et al. (2017) and Qiang et al. (2016) about the importance of electronic word-of-mouth (eWOM) in impacting consumer choices. Our study delves deeper by concentrating on the Tokopedia platform and the generation Y demographic in Indonesia's distinctive e-commerce environment. It utilises the Elaboration Likelihood Model (ELM) and Social Influence theories to analyse the cognitive and social elements that impact eWOM adoption. This study recognises certain limitations, including sample bias, self-reported data, and limited generalizability. Purposive sampling may not comprehensively represent the complete Tokopedia user population. Depending on self-reported surveys may lead to common technique bias. The results may not be immediately relevant to other e-commerce platforms or user demographics. Our research enhances comprehension of the dependence on User-Generated Content (UGC) in e-commerce, specifically among Generation Y consumers. This research can be used to create more sophisticated models for predicting and comprehending eWOM uptake in online buying scenarios. Tokopedia can use these findings to develop strategies to address misinformation and enhance the credibility of electronic word-of-mouth (eWOM); customise marketing efforts and product suggestions according to the eWOM preferences of Generation Y; create functionalities that foster user interaction and support trustworthy eWOM sharing. Other e-commerce companies in Indonesia can benefit from understanding Generation Y's online shopping habits and adjust their strategies accordingly.

5.2. Conclusion

This study offers valuable insights for research and practice on eWOM communications and review platforms in e-commerce. The results demonstrate the influential roles of argument quality, source credibility, and information usefulness in shaping online purchase decisions. As one of the first empirical studies situated in Indonesia examining review antecedents and eWOM adoption outcomes, it advances eWOM theory while also providing practical guidelines for facilitating informed online shopping. Future research can build on this work by studying different product categories, age groups, and cultural contexts.

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