The E-WOM Impact on Shopee's Purchase Intention: Perceived Quality Mediation

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Abstract
Technological developments make it easier for us to carry out buying and selling transactions for goods and services, one of which is the presence of various online shopping platforms such as Shopee. This growth and development is of course supported by many factors, one of which is the effective implementation of e-WOM and the celebrities who participate in encouraging the progress of this platform through their campaigns. This research aims to study the influence of e-WOM, celebrity endorsers, brand image on buying interest in people living in the Jabodetabek area and its surroundings. The results of the analysis show that the implementation of e-WOM has an influence on buying interest which is greater than before. This research provides an understanding of e-WOM, celebrity endorsers and brand image in purchasing interest through Shopee e-commerce.

Keyword: E-WoM; celebrity endorser; brand image; perceived quality; purchase intention.
1. Introduction

Currently, the world has entered the era of intelligent living due to many technological advances in various aspects of human life, especially in terms of the use of information and communication technology. Consumers initially did everything “manually” during the non-digital era. However, along with advances in digital technology, today’s consumers do not need humans as intermediaries in carrying out activities. In contrast, humans do various things with the help of digital robots and bots (software or automation applications). These technological advances of course also have an impact on electronic commerce or e-commerce. Of the many e-commerce sites in Indonesia, currently Shopee is the e-commerce site with the largest number of site visits. Based on data from SimilarWeb, during the January-March period in 2023, the Shopee site received an average of 157.9 million visits per month.

Before the digital era, consumers who wanted to shop required a lot of effort, such as going to offline stores, searching for and selecting products, and also comparing prices to get goods that suited their needs and desires. However, this problem disappeared instantly when the digital era created a direct relationship between sellers and consumers, where consumers can easily get access to search for the desired product from various sellers online, compare prices, and of course can buy the product they are looking for directly. The process of shipping, payment, product reviews, discounts and customer service can be easily accessed, making consumers happier shopping online, which ultimately creates a paradigm shift in consumer behavior to become more efficient and practical.

The development of the e-commerce industry in Indonesia is also influenced by online shopping styles, especially among the millennial generation and generation z. They also often exchange information or simply give advice to their relatives who want to make purchases at their favorite stores or e-commerce based on their personal experiences. According to Gruen (2006), e-WOM is a medium for communicating with each other to exchange information related to a product or service that was previously used between consumers who have never met or even know each other.

The existence of e-commerce also makes consumers actively involved in purchasing and selling products and services in online markets and communities.

The problems faced, especially in predicting purchase intention when shopping online, include what determinants can motivate consumers to have the intention to shop online, especially buying products or services on Shopee e-commerce. This is important considering the tight competition between e-commerce in Indonesia such as Tokopedia, Lazada and Blibli. It is very important to understand the determinants of purchase intention when shopping online. Electronic word of mouth, celebrity endorsers, and brand image are predicted to be determinants of purchase intention. However, another factor that needs to be considered is the role of perceived quality in mediating the influence of these factors on purchase intentions. Electronic word of mouth is a type of marketing carried out by word of mouth carried out by customers through social media or online media such as Facebook, Instagram and WhatsApp groups as well as various other online comments. Meanwhile, celebrity endorser is a marketing process through someone who has a lot
of followers on social media or through an Instagram celebrity. Brand image is the relationship between customer perceptions of a site's brand. This is used to encourage customers to have the intention to shop online. Finally, perceived quality is a consumer's view regarding the extent to which a product or service can meet their expectations and needs.

This is what makes the author interested in further research into what variables can influence consumer purchase intention in Shopee e-commerce, by investigating the role of perceived quality as a mediator which allows a deeper understanding of consumer behavior in online shopping and is relevant for competition, fierce battle between various e-commerce platforms in Indonesia.

2. Literature Review

2.1 Electronic Word of Mouth

According to (Ismagilova et al, 2017) electronic word of mouth (eWOM) is the process of continuously exchanging information between potential, actual or previous consumers regarding a product, service, brand or company that is available via the internet to many individuals and institutions. According to (Gruen, Osmonbekov, and Czaplewski, 2006:452) e-WOM functions as a tool for sharing information about goods and services that have been consumed by customers, both those who already know and those who do not know each other. Electronic word of mouth is an important area of research in advertising because it can provide useful knowledge about consumers exchanging information about goods and services online and how this information can influence them in making decisions (Shu-Chuan Chu & Juran Kim, 2018). According to (Hamzah, Mohammed, and Hussein, 2020) e-WOM includes everything that was previously done to display the positive or negative aspects of a product or service via the internet. E-WOM is the communication of information about products or brands via the internet, non-commercially, and between individuals using the advantages of mass communication channels (Pourfahkimi, Duncan, and Coetzee, 2019).

2.2 Celebrity Endorser

The rapid development in the business industry currently encourages companies to implement various strategies to attract customer interest in the goods or services they produce. One way to promote products that you want to market is through famous people (celebrity endorsers). Kotler (2008) states that celebrity endorsement is the way a celebrity uses their brand or personality to convey the message they want to convey. Currently, many companies are using this strategy. Companies also have to consider several things when considering using celebrity endorsers. According to Belch & Belch (2009), there are eight things that a company needs to pay attention to, namely the celebrity must match the brand, match the audience, the celebrity's attractiveness, credibility, ease and difficulty of work, cost considerations, problem factors and boredom factors.

2.3 Brand Image
According to Kotler and Keller (2007:346), brand image can be explained as the perceptions and beliefs held by consumers, which are reflected in the associations contained in their memories. This brand image is very important for marketers because it can influence how customers perceive alternative brands, which can not only meet customer needs, but also provide better satisfaction and higher levels of trust. Consumers often choose brands based on their brand image, as stated by Schiffman and Kanuk (2000: 141). When consumers have no previous experience with a product, they tend to “trust” familiar or well-known brands.

2.4 Perceived Quality

According to Ferrinadewi (2008:172), perceived quality is how consumers assess the overall quality of the product based on their subjective evaluation. By referring to several previous definitions, it can be concluded that perceived quality is a consumer's assessment of the overall quality of the product. Perceived quality can be evaluated based on seven product dimensions, namely:

- Product performance or performance.
- Additional parts contained in the product.
- Product features or characteristics.
- Product reliability, namely the extent to which the product can be relied upon.
- Product conformity with specified specifications.
- Product durability or durability in long-term use.
- Service and aesthetic aspects related to the product.

According to David Aaker (2008:124), customer perceptions of the overall quality or superiority of a product or service in relation to the intended purpose are called perceived quality. Consumer perception is the first quality. Aaker (2008:124) argues that perceived brand quality is very different from almost the same concept as actual or objective quality—actual or objective quality—where this concept is an extension of the part of the product or service that provides better service; product content quality—product-based quality—where this concept includes the characteristics and quantity of elements, parts, or services that provide better service. Furthermore, the quality of the manufacturing process, or manufacturing quality, refers to conformity to specifications, meaning the final result is without defects.

2.5 Purchase Intention

According to Agmeka et al (2019), purchase intention is an important factor that measures the possibility of action that the buyer will take. Understanding consumer purchasing intent can help businesses understand the market and adapt their goods or services to increase sales and profits. Additionally, understanding consumer purchase intent can predict customer retention of a particular brand. According to Assidin et al. (2016), previous research shows that purchase intention is often used to predict current sales of products and services. Additionally, the measurement of purchase intentions influences contemporary marketing. To predict new product sales, market research companies often use purchase intent. Measures of purchase intention are
also often used to determine the likelihood of purchasing a product within a certain time period, as well as other factors (Ali, 2019) and (Sivaram et al., 2020).

3. Material and Method

This research uses quantitative research methods where the role of data is very influential in conducting research. There are two types of data used in this research, namely primary data and secondary data.

- Primary Data: According to Husein Umar (2013), primary data is information obtained directly from original sources, such as individuals or individuals. This data can be the results of interviews or the results of filling out questionnaires which are generally carried out by researchers.
- Secondary Data: According to Hasan (2002), secondary data is information obtained or collected by researchers from existing sources. Secondary data sources can be library materials, literature, previous research, books, and other pre-existing sources.

3.1 Design Study

The method used in this research is a quantitative method. According to Margono, quantitative research is a method that uses a lot of verification hypothesis logic starting from deductive thinking to continue the hypothesis which is then tested in the field and the conclusions obtained come from empirical data.

3.2 Data Analysis

In this study, questionnaires were widely distributed on social media platforms. Shopee e-commerce users are the main target of this research and were selected through a purposive sampling method of 100 users.

Based on the survey results above, it shows that the age range of Shopee e-commerce users is 83% or 83 respondents aged 17-25 years. This age range shows the highest number of respondents compared to other age ranges such as those aged 26-34 years at 5% or as many as 5
respondents, and those aged under 17 years at 12% or as many as 12 people which when added together shows 100% of respondents as many as 100 respondents.

Based on Figure 2, it shows that 62% or 62 respondents were female. This figure shows that there are more female respondents than male respondents, which is only 38% or 38 respondents who filled out this research questionnaire.

Based on Figure 3, it shows that 86% or 86 respondents live in the Jabodetabek area, which is the majority of the domiciles of the respondents in this research questionnaire. This figure shows that there are more respondents domiciled in the Jabodetabek area than outside the Jabodetabek area, which is only 14% or 14 people.

Figure 3
Based on Figure 4, it shows that 73% or 73 respondents had their final education at senior high school, which is the majority of the final education completed by the respondents in this research questionnaire. The respondents' last education was other than high school, namely 19% or 19 respondents had a bachelor's degree or diploma as their last education and 8% or 8 people had their last education at junior high school.

Based on Figure 5, it shows that 86% or 86 respondents are students who make up the majority of the jobs held by the respondents in this research questionnaire. As for the occupations of respondents other than students, 5% or 5 of the respondents were self-employed, 6% or 6 of them were private employees and 3% of the respondents in this study or 3 of them were civil servants (PNS).
### 3.2.1 Outer Loading Factor

<table>
<thead>
<tr>
<th></th>
<th>E-WoM</th>
<th>Celebrity Endorser</th>
<th>Brand Image</th>
<th>Perceived Quality</th>
<th>Purchase Intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1.1</td>
<td>0.797</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>X1.2</td>
<td>0.832</td>
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<tr>
<td>X1.3</td>
<td>0.599</td>
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<td>X1.4</td>
<td>0.863</td>
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<td>X1.5</td>
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<tr>
<td>X2.1</td>
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<tr>
<td>X2.2</td>
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<td>0.833</td>
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<tr>
<td>X2.3</td>
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<td>X2.4</td>
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<td>X3.1</td>
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<td>Y.2</td>
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<td>Y.3</td>
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<td>Z.1</td>
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<td>0.802</td>
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<td>0.949</td>
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</tbody>
</table>
In table 4.6, based on the calculation results above, we can find that there is one indicator that has been eliminated, namely X1.3. This happens because the related indicator has a value below 0.70 so it is eliminated and cannot be used in further research. Furthermore, after one indicator that does not comply with the requirements is eliminated, the final path diagram appears which will be used until the end of the research process as in the image below:

There was one indicator out of a total of 30 indicators in this study that was eliminated because it did not comply with the provisions of outer loading, leaving 29 indicators. Explanation of the eliminated indicator, namely X1.3: I assess product or service reviews from other users on Shopee as credible.

4. Results
4.1 Reliability and Validity Test

Cronbach alpha and composite reliability are important methods for assessing the reliability of a questionnaire. According to Ghozali (2016), Cronbach's alpha calculates the lower limit of the reliability of a construct and estimates the consistency between items in the questionnaire. The rule of thumb for Cronbach alpha reliability and composite reliability is greater than 0.7 although a value of 0.6 is still acceptable. The method used next to measure construct validity is average variance extracted (AVE) which has a good value if it is above 0.5.
Based on the data in table 4.7 related to construct reliability and validity, it shows that data has good reliability and validity values for each variable. The existing variables can be declared reliable because they have a Cronbach’s alpha value above 0.70 and composite reliability above 0.7. Then, the validity test can be seen based on the AVE value of the existing variables which also shows a good value because it is more than 0.5.

4.2 Discriminant Correlation Test

In an effort to measure the extent to which a construct can be different from other constructs, it is necessary to use a discriminant correlation test. The validity of the discriminant correlation test was assessed using the Fornell-Larcker Criterion method. Discriminant validity is considered valid if the square root value of AVE is higher than the correlation coefficient between constructs.
Table 4.8 shows that the discriminant validity values of all variables have met the requirements because the AVE root value is higher than the correlation value between the variables.

### 4.3 R Square

R-square is a value that shows how much influence the independent (exogenous) variable has on the dependent (endogenous) variable. The R value ranges between 0 and 1, indicating how much variation in the independent variable can explain the influence of the dependent variable.

<table>
<thead>
<tr>
<th></th>
<th>R-square</th>
<th>R-square adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Quality</td>
<td>0.614</td>
<td>0.602</td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>0.812</td>
<td>0.804</td>
</tr>
</tbody>
</table>

There are three categories of r-square which are based on the strength of the relationship between the variables, namely:

- **Strong**: R-square value greater than 0.67
- **Medium**: R-square value between 0.33 and 0.67
- **Weak**: R-square value between 0 and 0.33.

The amount of variance in the perceived quality variable that can be explained by e-WOM, celebrity endorser, and brand image is 61.4% and is included in the moderate influence. Then, the variance in the purchase intention variable which can be explained by e-WOM, celebrity endorser and brand image is 81.2% and is at the level of strong influence.
5. Discussion
5.1 Direct Influence Analysis

Next, this research calculates the path coefficient to see the direct influence of variables. This is done if the relationship between variables in the path coefficient has a T statistical value greater than 1.960 and a p value less than 0.05, which indicates that the hypothesis results are acceptable (Hair et al., 2021).

|                         | Original sample (O) | Sample mean (M) | Standard deviation (STDEV) | T statistics (|O/STDEV|) | P values | Result |
|-------------------------|---------------------|-----------------|---------------------------|--------------------------|----------|--------|
| e-WOM -> Perceived Quality | 0.429               | 0.420           | 0.115                     | 3.741                    | 0.000    | Diterima |
| e-WOM -> Purchase Intention   | 0.154               | 0.150           | 0.073                     | 2.097                    | 0.037    | Diterima |
| celebrity endorser -> Perceived Quality | -0.154              | -0.135          | 0.100                     | 1.532                    | 0.126    | Ditolak |
| celebrity endorser -> Purchase Intention | -0.144              | -0.146          | 0.062                     | 2.297                    | 0.022    | Diterima |
| Brand Image -> Perceived Quality | 0.522               | 0.518           | 0.091                     | 5.724                    | 0.000    | Diterima |
| Brand Image -> Purchase Intention    | 0.141               | 0.140           | 0.097                     | 1.450                    | 0.148    | Ditolak |
| Perceived Quality -> Purchase Intention | 0.734               | 0.740           | 0.069                     | 10.612                   | 0.000    | Diterima |

Source: Primary Data Processing

Based on the results of the calculation of the path coefficient, the first hypothesis can be seen, namely that the influence of e-WOM on perceived quality has a significant effect and in a positive direction. This happens because the p-value of the first hypothesis is 0, which is less than 0.05, and for the t statistic it is 3.741, which is greater than 1.960. Then the original sample shows positive results because the direction of the relationship between the two variables is 0.429. Therefore, the first hypothesis can be accepted.
The second hypothesis is that e-WOM has a positive and significant effect on purchase intention and in a positive direction. This happens because the p-value of the first hypothesis is 0.037, which is less than 0.05, and for the t statistic it is 2.097, which is greater than 1.960. Then the original sample shows positive results because the direction of the relationship between the two variables is 0.154. Therefore, the second hypothesis can be accepted.

The third hypothesis, namely the influence of celebrity endorsers on perceived quality, indicates that the relationship between the two variables does not influence each other significantly and has a negative direction. This is because the p-value of the third hypothesis is 0.126 where this number is more than 0.05 and for the t statistic it is 1.532 where this number is less than 1.960. Then the original sample shows negative results because the direction of the relationship between the two variables is -0.154. Therefore, the third hypothesis is rejected.

The fourth hypothesis is that celebrity endorsers have a positive and significant influence on purchase intention and in a positive direction. This happens because the p-value of the fourth hypothesis is 0.022 where this number is less than 0.05 and for the t statistic it is 2.297 where this number is greater than 1.960. Then the original sample shows positive results because the direction of the relationship between the two variables is 0.144. Therefore, the fourth hypothesis can be accepted.

The fifth hypothesis is that brand image has a positive and significant effect on perceived quality and in a positive direction. This happens because the p-value of the fifth hypothesis is 0, which is less than 0.05, and for the t statistic it is 5.724, which is greater than 1.960. Then the original sample shows positive results because the direction of the relationship between the two variables is 0.522. Therefore, the fifth hypothesis can be accepted.

The sixth hypothesis is that brand image has a positive and significant effect on purchase intention and in a positive direction. This happens because the p-value of the sixth hypothesis is 0.148, which is less than 0.05, and for the t statistic it is 1.450, which is less than 1.960. Then the original sample shows positive results because the direction of the relationship between the two variables is 0.141. Therefore, the sixth hypothesis is rejected.

The seventh hypothesis is that perceived quality has a positive and significant effect on purchase intention and in a positive direction. This happens because the p-value of the seventh hypothesis is 0, which is less than 0.05, and for the t statistic it is 10.612, which is greater than 1.960. Then the original sample shows positive results because the direction of the relationship between the two variables is 0.734. Therefore, the seventh hypothesis can be accepted.

5.2 Indirect Effect Analysis

Indirect influence analysis can be seen through specific indirect effects to see whether perceived quality can mediate the existing variables.

<table>
<thead>
<tr>
<th>Original sample (O)</th>
<th>Sample mean (M)</th>
<th>Standard deviation (STDEV)</th>
<th>T statistics (O/STDEV)</th>
<th>P values</th>
<th>Result</th>
</tr>
</thead>
</table>

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The results of the first significant indirect effect calculation show the results of the eighth hypothesis, namely the influence of e-WOM on purchase intention through perceived quality, indicating that the relationship between the two is significant and has a positive direction. This happens because the p-value of the seventh hypothesis is 0, which is less than 0.05, and for the t-statistic it is 3.551, which is greater than 1.960. Then the original sample shows positive results because the direction of the relationship between the two variables is 0.315. Therefore, the eighth hypothesis can be accepted.

The ninth and eighth hypothesis, namely the influence of celebrity endorsers on purchase intention through perceived quality, indicates that the relationship between variables is not significant and has a negative direction. This happens because the p-value of the ninth hypothesis is 0.127, which is less than 0.05, and the t-statistic is 1.530, which is less than 1.960. Then the original sample shows positive negative results because the direction of the relationship between the two variables is -0.113. Therefore, the ninth hypothesis is rejected.

The tenth hypothesis, namely the influence of brand image on purchase intention through perceived quality, indicates that the relationship between the two is significant and has a positive direction. This happens because the p-value of the tenth hypothesis is 0, which is less than 0.05, and for the t-statistic it is 5.394, where the number is greater than 1.960. Then the original sample shows positive results because the direction of the relationship between the two variables is 0.383. Therefore, the tenth hypothesis can be accepted.

6. Conclusion, Implications, Recommendation

6.1 Conclusion

In this research it can be concluded that:

- **Direct Influence:**
  - e-WOM (X1), celebrity endorser (X2), perceived quality (Y) effect influence purchase intention (Z).
  - e-WOM (X1), brand image (X3) effect influence perceived quality (Y).
  - Brand image (X3) has no effect on purchase intention (Z).
  - Celebrity endorsers have no effect on the mediating variable perceived quality (Y).
Indirect Influence Through Perceived Quality Mediation:
- Perceived Quality can mediate the influence of e-WOM (X1) on purchase intention (Z) (full mediation).
- Perceived Quality cannot mediate the influence of celebrity endorser (X2) on purchase intention (Z) (no mediation).
- Perceived Quality can mediate the influence of brand image (X3) on purchase intention (Z) (partial mediation).
The results of the analysis show that e-WOM have a significant positive relationship in influencing someone's buying interest through e-commerce.

6.2 Implications
The positive and significant influence of e-WOM on purchase intention can contribute to related theories and can reveal the role of perceived quality as a mediator. This research has significant practical implications for e-commerce industry players, especially platforms like Shopee. Understanding that perceived quality has an important role in mediating the relationship between marketing factors such as E-WOM, celebrity endorsers, and brand image with purchase intention, can help this platform improve the company's marketing strategy.

6.3 Suggestions
- More in-depth measurements of perceived quality can be carried out in further research in the e-commerce context.
- Future research can test the same model but on other e-commerce platforms.
- The data obtained is based on distributing questionnaires only and in the future data collection techniques can be used using other methods.

7. References


