Online consumer reviews and product ratings influence the repurchase intention of Scarlet Whitening

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INTRODUCTION

Scarlett Whitening is a phenomenon. Products just released in 2018 led the care product market in August 2021 at Shopee and Tokopedia, with the largest market share of 18.9%. Is this success related to the many positive customer testimonials about the product that are shared online?

Experts (e.g., Goyette et al., 2012; Hajli, 2020; Kotler & Keller, 2016) have underlined that word of mouth (WOM) is a powerful tool to influence consumers' behavior because of its natural tones. Consumer reviews and product ratings delivered via the marketplace are the kind of WOM or, more specifically, e-WOM. The dimensions that are considered heavily by the consumers are WOM's negativity and positivity.
Scarlett Whitening enjoys positive customers review and ratings. Below are the examples of Scarlett Whitening’s most recent customers' reviews taken conveniently from the non-official online store named 'entercosmetics’ in Shopee:


Aku pake serum glowtening ini udah ke 2x nya. Bareng sama yg brightening. Di aku kulit kombinasi U zone kadang kering krn kerja kantoran full AC membantu banget. Pake nya kadang cm di U zone aja, kadang semua muka. Tergantung kondisi muka saat itu aj. Ini untuk kulit kering si rekomem.” (Price: cheap because you get a discount at 12.12 o’clock. Packaging: arrived safely. Benefits: moisturizing. I use the glowing serum for the second time and the brightening. Sometimes I use them on my front face, sometimes on all of my faces, depending on my face condition. For dry skin, I recommend the products) [Rasanti, 2021, December 16].

Harga: murah
Kemasan: ori
Manfaat: ok

Lembut wangi pokoknyaa fix bakalan langganan

Harga: terjangkau
Kemasan: oke
Manfaat: bagus
Kualitas produk sangat baik, produk original, harga original, kecepatan pengiriman sangat baik....
(Affordable prices. Packaging: OK. Benefits: good. The quality of the product is very good. The product is original. The price is original, delivery speed is very good) Mariana, 2021, September 14].

From those reviews, the authors identify Scarlett Whitening's positive associations, such as affordable price, soft texture, ease of absorption, the fragrance lasts long, originality of the product, and good service delivery. Of course, there is also the negative response that is given by customers who rated Scarlett Whitening with the star of 1 and 2. However, their number is relatively low compared to those who give the stars of 4 and 5. For example, the comparison in 'entercosmetics’ is 10.889:49 or 212:1.

Besides the positive reviews domination, the authors also displayed the rating of ten stores that have sold more than 10,000 items or packages of Scarlett Whitening that are chosen conveniently in Shopee, as displayed in Table 1. In general, the Scarlett Whitening sold by that online store enjoyed high product ratings, with a grand average of 4.88.

Lee and Ship (2014) underlined that customers' reviews significantly influence purchase intention. However, Moe and Schweidel (2012) have warned that the higher the number of consumers who give positive reviews, the more likely a consumer is to post positive reviews, and vice versa. The authors believe that positive consumers review influence purchase intention positively. However, it is unclear which is the more
Influenced one, descriptive customers’ reviews or online product ratings. This study is purposed to answer that question.

Table 1
Rating of Ten Online Stores with Sales that Sell More Than 10,000 Scarlett Whitening Products through Shopee

<table>
<thead>
<tr>
<th>Online Store</th>
<th>Stars Given by the Customers</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: lookbeauty.id</td>
<td>86,500 8,400 1,400 229 323</td>
<td>4.86</td>
</tr>
<tr>
<td>H2: scarletofficialshop</td>
<td>61,000 3,500 463 73 90</td>
<td>4.92</td>
</tr>
<tr>
<td>H3: distributor.creamrd.or</td>
<td>193,600 17,600 2,500 474 615</td>
<td>4.88</td>
</tr>
<tr>
<td>H4: galerymerlina</td>
<td>1,200 89 17 1 3</td>
<td>4.89</td>
</tr>
<tr>
<td>H5: maskerspirulinaofficial</td>
<td>2,100 251 42 7 11</td>
<td>4.83</td>
</tr>
<tr>
<td>H6: crestjoy</td>
<td>8,300 684 126 26 66</td>
<td>4.86</td>
</tr>
<tr>
<td>H7: cibgrosir</td>
<td>6,100 577 87 15 14</td>
<td>4.87</td>
</tr>
<tr>
<td>H8: somethinc</td>
<td>10,400 574 38 5 7</td>
<td>4.94</td>
</tr>
<tr>
<td>H9: entercosmetics</td>
<td>9,500 889 126 21 28</td>
<td>4.88</td>
</tr>
<tr>
<td>H10: gisellashop.id</td>
<td>16,700 1,600 207 24 35</td>
<td>4.88</td>
</tr>
<tr>
<td>Grand Average</td>
<td></td>
<td>4.88</td>
</tr>
</tbody>
</table>

In detail, there are two objectives of this study. First, how do descriptive consumer reviews and online store ratings influence consumers’ purchase intention? Second, which is the stronger one, the influence of product ratings or online store ratings?

LITERATURE REVIEW

Consumer reviews

Online consumer reviews is an evaluation of various aspects of products made by consumers, where with this information, consumers can conclude the quality of goods according to reviews and experiences to reduce personal time and purchase risk (Moe and Schweidel (2012)).

An online consumer reviews is a form of word-of-mouth communication in online sales (Filieri, 2014), where prospective buyers receive information about products from consumers who have received benefits from these products (Filieri, 2014).

Electronic Word of Mouth is a statement both positive and criteria made by people who will buy the product, people who have already bought the product, or anyone who wants to comment on a product (Goyette et al. 2012; Hennig-Thurau et al. 2003).

As part of WOM, consumer reviewss have positive and negative dimensions (Freedberg et al., 2017). In addition, as noted by Flanagin and Metzger (2007), other dimensions of consumer reviews are:
a. Credibility, whether a statement is believed to be true or accurate. A piece of information can be relied upon if the information does not have many errors and the source of information is traced.
b. Trustworthiness, namely whether the information can be trusted, is determined by the extent to which the source is seen to have honesty and integrity and can be trusted.
c. Honesty. A review is an expression of someone's opinion and feelings about using a product. In an honest review, there are no manipulation, plagiarism, or lies to gain profit for oneself.

**Online Product ratings**

Ratings are customer opinions on a certain scale. A popular rating scheme for a rating in online stores is to give a star. The more a store stars, the better the seller rating (Lackermair et al., 2013). Conversely, the fewer stars are given, the lower the perception of product quality.

The online product ratings is part of a review that uses the form of a star symbol rather than text in expressing opinions from customers and as an assessment of users' preferences for a product on their experience, referring to the psychological and emotional state they experience when interacting with products in the environment in which they live Farki et al. (2016). The same opinion was given by Filieri (2014; 2019). He stated that ratings are another type of opinion that many people give. It is the final result of consumers’ evaluations of the differences in product features or the seller's shop.

In this study, there are two dimensions of product ratings:

a. The average rating

The higher the average rating, the higher the quality of the product and the better the seller's perception. This dimension still depends on the number of raters, as in the following points.

b. Total number of rating

Ratings that use the form of a star symbol. The more consumers give a good rating, the higher the quality of the product and the higher the seller's rating.

**Purchase Intention**

Simamora (2022) stated that there are several concepts that describe future behavior: expectation, willingness, intention, decision, and volition. He said that when someone has no plan, he may have expectations or willingness. For example, someone has no plan to visit Japan, but he can express his expectation (Armitage et al., 2015): “I believe that someday I will visit Japan.” He can also have the willingness (Lee et al. 2016): “I want to visit Japan someday,” or goal intention (Golwitzer, 1999): “I should visit Japan someday,” or implementation intention (Blijeke et al. 2021; Golwitzer, 1999): “If I have money, time, family support, and wish to travel abroad, I will visit Japan.”

When someone has a plan, he can state his behavioral intention (I plan to visit Japan next month) (Ajzen, 1991). In a situation where someone definitely will perform a
behavior, he has a volition (I am making a passport because I am leaving for Japan next month) (Bagozzi, 1993)

Although it determines future behavior, a decision is not part of the discussion because when the research is undertaken, the author can not make sure whether the customers have just decided to purchase or not to purchase the behavior. The author can not make the same approach to the customers' plan or certainty to do that behavior. Therefore, the behavior under discussion is under what Blieke et al. (2021) called an 'if-then' situation or implementation intention, according to Golwitser (1999).

Conceptual Framework

As stated before, Lee and Shin (2014) underlined that customers' reviews influence purchase intention significantly. Many studies also confirm the influence of rating and purchase intention (e.g., Denis et al., 2020; Mulyati, 2020). With these findings, we can propose that consumer reviews and online store ratings influence purchase intention. However, the direction of the hypothesis should be made in detail.

Referring to Lee and Shin (2014), the influence of product ratings on purchase intention should be two directions hypothesis because those authors did not specify the valence of the review. However, in this study, the author proposes one directional hypothesis by specifying the direction of the reviews as follows:

H1: The better the customers' reviews, the higher the purchase decision

Lackermair et al. (2013) stated that the more stars a store have, the better the rating. From this proposition, we can see that rating is one direction variable that ranges from low to high. In its relationship with purchase intention, we can only formulate one directional hypothesis as follows:

H2: The higher the online store rating, the higher the purchase intention.

METHODS

Sample

The population in this study is the buyer of Scarlett Whitening through Shopee. The authors selected 100 customers conveniently as a sample, considering that the last transaction was a month ago or more recent. The sample size is sufficient considering Hair et al.'s (2014) suggestion that every question item should be at least compared to five respondents. This research use seven-item of basic questions. Therefore, the minimum size of respondents is 35 people. It means that the sample size of this study has surpassed the minimum size.

Measurements

Consumer reviews are measured based on the dimensions suggested by Freedberg et al. (2017) and Flanagin and Metzger (2007), i.e., positive direction, credibility, Trustworthiness, and honesty. For example: "In general, customers' review on scarlet Whitening is positive." Customers' rating is measured using the variable, i.e., the general perception of Scarlet Whitening rating ("In general, the rating of Scarlett Whitening is
“high”) and the robustness of rating calculation (“The rating of Scarlett Whitening) is calculated with a clear method”). Behavioral intention is measured with single question adapted from Fishman et al. (2020) (“In a situation, you are ready to buy a body lotion, how likely are you to buy Scarlett Whitening soon?” All the questions use five levels of the Likert-type Scale (1: Very disagree; 5: very agree). Pilot research is conducted to ensure convergent validity ($r \geq 0.70$) and reliability (Alpha $\geq 0.70$).

**Data Collection**

Data were collected by interview using a questionnaire in the form of a Google form as a data collection tool. The Google form link is shared with Shopee shoppers, which can be accessed via Whatsapp social media. Google forms are set up so that respondents fill out all question items. Each respondent may only fill out the Google form once.

**RESULTS**

**Respondent Profile**

Respondent profiles are displayed in Table 1. As we can see, most of the respondents are women (72%), students (81%), and have bought Scarlett Whitening three times or less (71%). The purchase is conducted by their selves (71%). Most importantly, all respondents have bought Scarlett Whitening through Shopee.

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Category</th>
<th>Respondent Frequency</th>
<th>In Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Man</td>
<td>28</td>
<td>28,0%</td>
</tr>
<tr>
<td></td>
<td>Woman</td>
<td>72</td>
<td>72,0%</td>
</tr>
<tr>
<td>Education</td>
<td>Senior high school</td>
<td>29</td>
<td>29,0%</td>
</tr>
<tr>
<td></td>
<td>Diploma</td>
<td>4</td>
<td>4,0%</td>
</tr>
<tr>
<td></td>
<td>Undergraduate</td>
<td>61</td>
<td>61,0%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>6</td>
<td>6,0%</td>
</tr>
<tr>
<td>Occupation</td>
<td>Student</td>
<td>81</td>
<td>81,0%</td>
</tr>
<tr>
<td></td>
<td>Employee</td>
<td>10</td>
<td>10,0%</td>
</tr>
<tr>
<td></td>
<td>Own business</td>
<td>2</td>
<td>2,0%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>2</td>
<td>2,0%</td>
</tr>
<tr>
<td>Buyer of Scarlett Whitening</td>
<td>Self</td>
<td>90</td>
<td>90,0%</td>
</tr>
<tr>
<td></td>
<td>Parent</td>
<td>4</td>
<td>4,0%</td>
</tr>
<tr>
<td></td>
<td>Friends/colleagues</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Brothers/relatives</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>6</td>
<td>6,0%</td>
</tr>
<tr>
<td>Frequency of Buying</td>
<td>1-3 times</td>
<td>71</td>
<td>71,0%</td>
</tr>
<tr>
<td></td>
<td>4-6 times</td>
<td>20</td>
<td>20,0%</td>
</tr>
<tr>
<td></td>
<td>7-9 times</td>
<td>6</td>
<td>6,0%</td>
</tr>
<tr>
<td></td>
<td>&gt; 10 times</td>
<td>3</td>
<td>3,0%</td>
</tr>
<tr>
<td></td>
<td>Never</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>
Multiple Linear Regression

Classic assumption test

Based on Williams et al. (2013), in this study, three assumptions should be fulfilled: normality distribution of residuals, multicollinearity free, and homoscedasticity condition. This study does not require the autocorrelation test because the data are cross-sectional, not serial or longitudinal.

Kolmogorov-Smirnov test generates the K-S value with asymp. Sig (2-tailed) of 0.75. It means no evidence to reject Ho: The residuals are normally distributed. Therefore, the normal distribution of the residuals assumption is fulfilled.

With a value tolerance of 0.706 and variable inflation factor (VIF) of 1.417 for both variables, the equation is free from multicollinearity. The Gejser test generates the p-value of the regression of the two independent variables on their residuals. Since their p-values are above the α=0.05, the two variables fulfill the homoscedasticity condition.

Table 2
Glejser Test Results

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>Sig.</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residuals</td>
<td>Online customer review</td>
<td>0.276</td>
<td>Homoscedasticity</td>
</tr>
<tr>
<td></td>
<td>Online product rating</td>
<td>0.848</td>
<td>Homoscedasticity</td>
</tr>
</tbody>
</table>

F Test

The F test aims to determine whether the regression model in this study is a good fit or a bad fit. With an F value of 52.418 and a p-value of 0.000, we can reject Ho and accept Ha, which states that multiple linear equations with two independent variables produce a purchase intention prediction value that is different from the original without regression. In other words, the linear regression equation is a good fit.

T Test

The next question is whether the coefficient of consumer reviews and customers' ratings is significant. With a t-value of 6.474 and a p-value of 0.000, there is sufficient evidence to reject Ho and state that the product ratings coefficient is significant. Thus, the product ratings positively affects purchase intention, and H1 is confirmed.

The t-value of the product ratings is 3.153, with a p-value of 0.002. So, there is sufficient evidence to reject Ho and proclaim that product ratings positively affects purchase intention.

Which is more influential of the two? It can be seen that customers' reviews have higher t-values than customers' ratings. Thus, customers' reviews are more influential. The difference between the two t values is 6.474-3.152=3.322. This value exceeds 1.96.
Thus according to Wijanto (2008), the difference in the effect of the two variables is significant.

**DISCUSSION**

This study found that customers’ reviews and customers’ ratings had a positive effect on the repurchase intention of Scarlett whitening. These results simplify purchasing decision-making processes (Schiffman and Wisenblit, 2015; Solomon, 2020). However, the question arises, why is the product ratings, which is the end of consumer reviewss, less influential than descriptive consumer reviewss?

The authors propose two answers to this question. First, despite simplification, consumers do not rely on the simplest information. To some extent, they continue to do cognitive learning to make satisfying decisions. Second, the function of the two attributes is different. Customers' ratings serve as an indicator of perceived product quality. Meanwhile, customers' reviews are used as input to assess the suitability of products with specific personal needs. Future research needs to examine both of these possibilities.

**CONCLUSION AND SUGGESTION**

Customers' reviews and product ratingss influence the repurchase intention of Scarlett whitening positively. Further research is suggested to investigate whether there is a limit to the purchase decision-making process simplification. Further, to investigate whether online customers' reviews and ratings have different roles in stimulating purchase intention.

**Acknowledgment**

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**REFERENCES**


Mulyati, Y., & Gesitera, G. (2020). Pengaruh online consumer reviews terhadap purchase intention dengan trust sebagai intervening pada toko online Bukalapak di kota


