

# Do Negative Reviews Have a Negative Impact on Consumer Product Evaluation?

*Taiga Sakuramoto, Kansai University*

*Kaito Mitsuishi, Kansai University*

*Yuya Nakamura, Kansai University*

*Nako Tsubota, Kansai University*

*Ayumi Tsumu, Kansai University*

*Takahiro Chiba, Kansai University*

## ABSTRACT

There are positive and negative reviews. Positive reviews have positive impact on consumer product evaluation, and negative reviews have negative impact on consumer product evaluation. However, existing research have overlooked cases where negative review does not necessarily negatively affect consumer product evaluation. So, we will clarify it.

**Keywords:** *e-WOM, benefit-centric WOM, attribute WOM, hybrid WOM, expertise*

## Introduction

Consumers often use information spread via word of mouth (WOM) when purchasing a certain product. For example, some consumers purchase a product based on its reviews (information that buyers gather from previous consumers regarding the products they sell). In recent years, WOM has been attracting attention as an important research topic in marketing theory. This is because communication between consumers is more efficient than the advertising activities that the companies make large investments in. WOM has a significant impact on consumers' decision-making ability and behavior at a low cost. In fact, many studies have suggested that WOM can have a more significant impact on consumer behavior than advertisements from the seller (Day, 1971; Engel, Kegerreis, and Blackwell, 1969; Sheth, 1971). Consumer-purchasing decisions are changing as the Internet rapidly develops and its use spreads. This is because social-networking services via social media and online shopping sites can be used for information exchange between consumers without them actually meeting in person (Henning-Thurau, Gwinner, Walsh, and Gremler, 2004).

Several studies that have explored the impact of online reviews (e-WOM) on consumer evaluation of products, and others are focused on analyzing two types of reviews, posi-

tive reviews and negative reviews, where reviews contribute to consumer product evaluations. Research has shown that positive reviews have a positive impact on consumer product evaluations and negative reviews negatively affected consumer product evaluations (East Hammond, and Lomax, 2008; Park and Lee, 2009; Sen and Lerman, 2007; Xia and Bechwati, 2008). Other studies have categorized attribute- and benefit-centric reviews (Park and Kim, 2008). In the latest research, they focus on the point that the research does not consider the characteristics of the Internet, and they are examining the various impacts that positive and negative ratios of reviews give to consumer behavior. According to Kikumori (2015), when consumers read reviews of hedonic goods, When the ratio of positive reviews to negative reviews is 8:2, it has been clarified that consumer product evaluations are higher than when the ratio of positive reviews to negative reviews is 10:0

Existing research has overlooked scenarios where negative reviews via WOM do not necessarily have a negative impact on consumer product evaluations. Therefore, building on knowledge from existing research, this study focuses on identifying and hypothesizing the conditions in which negative reviews do not negatively affect consumer product evaluations. In order to examine the empirical validity of the

---

**For further information contact:** Taiga Sakuramoto, Kansai University (ku.sakuramoto@gmail.com).

---

proposed hypothesis, we conducted multiple comparative analyses using the data obtained from consumer surveys. Based on the results, we then provide academic and practical opinions.

## **Literature Review**

### ***Types of Products Subject to Review***

Products can be classified into two types: hedonic goods and utilitarian goods (Laurent and Kapferer, 1985; Mittal, 1989; Vaughn, 1980; Zaichkowsky, 1987). Hedonic

goods are products whose attributes differ based on consumer preference and personal feelings, and their product evaluations tend to fluctuate.

Based on reviews of hedonic goods, it was found that consumers do not evaluate the products objectively; rather, their evaluations are of a subjective nature (Sen and Lerman, 2007). This is because the product characteristics of hedonic goods differ based on consumer preferred attributes.

In contrast, utilitarian goods are products characterized by the function and performance; hence, they are evaluated with respect to their functional and practical roles.

Consumers who purchase and use utilitarian goods use them for practical purposes based on their needs, and they want them to solve their own problems. (Babin et al., 1994).

### ***Expertise of Consumers and Appeal of Reviews***

Park and Kim (2008) classified reviews as either an attribute-centric or benefit-centric review. The attribute-centric review is a rational, objective, and detailed description of a product based on performance information. However, the benefit-centric review is an emotional, subjective, and abstractly written review based on the writer's personal benefits from using the product.

Sussman and Siegal (2003) examined the product expertise of consumers who received reviews via e-WOM. According to them, consumers with a good level of expertise on the product value the content of reviews. However, those with a lower level of expertise focus on the credibility of the information sources.

The former can examine information based on their experiences and knowledge and evaluate the products accordingly. Therefore, compared with benefit-centric reviews, attribute-centric reviews are more effective for such consumers. However, the latter cannot thoroughly examine information on the attributes of a product. Thus, the benefit-centric review, which describes a product in terms of its utility, is more

effective for such consumers than an attribute-centric review (Walker and Olson, 1987).

### ***Positive/Negative Ratio***

Lee et al. (2008) showed that a high percentage of negative reviews on a webpage results in a negative product evaluation by consumers as compared to the case when the percentage is low.

However, Doh and Hwang (2009) pointed out that if there are multiple reviews on a webpage, the presence of negative reviews will have a greater effect on the reliability of the review content and website compared to the case without any negative reviews.

Based on the results of Doh and Hwang (2009), Kikumori (2015) showed that a certain percentage of negative reviews does not result in a consumer having a negative evaluation of the product; in fact, it can have a positive influence on their evaluation.

In addition, she clarified the conditions under which such a phenomenon occurs and when will it be more strongly urged using variables such as the type of product, expertise of the consumer as a receiver, and content of appeal.

## **Hypothesis**

### ***Negative Hybrid WOM That Resolves Consumer Queries***

A hybrid review combines the feature of both attribute- and benefit-centered reviews. This is possible because there are attribute-centered reviews that can be understood even by consumers with low expertise. For example, when a consumer with low expertise sees a review about a product on a single web page, 80% is negative attribute-centered review cannot carefully examine and 20% is positive benefit-centered review can examine, considering the existing research, we will place importance on positive benefit-centered reviews of 20% that can be examined, we will make positive product evaluations. However, this contradicts many existing studies, and it is unlikely to actually happen. If 80% of reviews are negative attribute-centered review a consumer with low expertise cannot carefully examine, even if 20% are positive benefit-centered review they can carefully examine, the consumer does not always evaluate positive product evaluation.

Therefore, there is an attribute-centered review that can be used to understand only the good or bad aspects of a product even for consumers with low expertise.

In our research, considering the above, we classified attribute-centered reviews, as those that can be thoroughly exam-

ined by highly specialized consumers, the attribute-centered reviews that even consumers with low expertise can examine. Therefore, reviews are categorized as attribute reviews, benefit-centered reviews, and hybrid reviews.

Many studies exploring the impact of reviews on product evaluation have not considered cases where attribute-centered reviews and benefit-centered reviews are mixed, e.g., where both are present on a single web page. Furthermore, the cases where even a consumer with low expertise can examine a hybrid review have not been studied.

Hence, this paper explores cases where negative reviews do not have a negative influence on consumer product evaluation based on hybrid reviews.

When consumers encounter low-priced products considering high-quality products, they may be doubtful about this imbalance and distrustful of the product owing to the price. Such an imbalance can occur in the case of utility goods.

However, if there are reviews that address these doubts, consumers will feel better informed even if it is a negative review. Furthermore, if the consumer has a very low level of expertise, the confidence gained from these reviews could lead to more a favorable evaluation of a product.

In the case of hedonic goods, the diversity in product evaluations is attributed to the diversity in individual values. In addition, it is crucial for a review that eliminates the imbalance between quality and price to include detailed information: that is, information on attributes, that resolves consumer doubts. In addition, it is necessary for such reviews to be hybrid reviews that incorporates the review's value judgements with attribute information, which can be understood by consumers with low expertise.

Therefore, we propose hypothesis 1-1, which asserts that the contents of negative hybrid reviews reduce the negative impact of the reviews.

H1-1. Where the products are utilitarian goods and where the consumer expertise is low, when positive WOM is 80% and 80% and negative hybrid WOMs that includes content that address a matter regarding the price and quality of a product is 20%, consumer satisfaction is higher than when positive WOM is 90% and negative WOM that do not include such content is 10%.

For products with multiple attributes, information on websites and information conveyed in face-to-face reviews may be inadequate. Thus, for utilitarian goods, consumers may question the unknown points about their function. If there

are reviews that address such questions, even though a they are negative, consumers with low expertise will feel more confident about the product, which could lead to a favorable product evaluation. Therefore, similar to hypothesis 1-1, we propose hypothesis 1-2, which asserts that content of hybrid reviews reduces the negative impact of negative reviews.

H1-2. Where the products are utilitarian goods and where the consumer's expertise is low, when positive WOMs is 80% and negative hybrid WOM that includes content that addresses a matter about the function of a product is 20% consumer satisfaction is higher than when positive WOMs is 90% and negative WOMs that does not address such an issue is 10%.

### ***Product Characteristics for Which Ideal Level About Products Differ Among Consumers***

When reading a negative review of a hedonic good, consumers say that the reviews content does not align with their evaluation of the products; hence, they are less likely to be affected by negative reviews (Sen and Lerman, 2007). This is because many of the product characteristics of hedonic goods are thought to be different from the ideal level depending on the consumer. For example, the optimal level with regard to descriptions such as "implicit/explicit" or "short/long" may vary for each consumer.

In a hybrid review that refers to the attributes of a hypothetical good that is examined by consumers regardless of their level of expertise, the ideal level tends to describe product characteristics that differ from consumer to consumer. Even though a negative hybrid review mentions that one product characteristic is negative, another consumer could like the characteristic mentioned in the review, which may lead to a positive product evaluation.

Therefore, based on the above discussion, we propose hypothesis 2.

H2. Where the products are hedonic goods and when the positive WOM is 80% and negative hybrid WOM that mentions the product characteristics for which the ideal levels differ among consumers is 20%, the consumer satisfaction is higher than when the positive WOM is 90% and negative WOM that does not address these issues is 10%.

## **Empirical Tests**

### ***Outline of the Experimental Investigation***

An empirical analysis was conducted to examine the empirical validity of the hypotheses. This was done by reconfiguring an experimental investigation from an existing study (Kikumori, 2015; Doh and Hwang, 2009; Lee, et al., 2008;

Park and Lee, 2009). Websites were created and consumers were asked to browse through them. Then, consumer data were collected by asking the consumers to answer certain questions.

To test hypothesis 1, consumers were divided on the basis of the median of their level of expertise, consumers who have high and low expertise. The target product was a digital camera, which is a utilitarian good (Kikumori, 2015). Four virtual websites were created, where the ratio of positive to negative reviews was 9:1 for the case when the negative hybrid WOM does not address questions about the price and quality of the product and 8:2 for the case when the negative hybrid WOM addresses questions about the price and quality of the product. The positive WOM is composed of only benefit-centric WOM and benefit- and attribute-centric WOM. In addition, the layout was set such that the product name was above the product's photo and 10 WOM reviews were posted under the photo. The negative reviews were randomly posted for both ratios.

With regard to hypothesis 1-2, when the ratio of positive to negative reviews is 8:2, the negative hybrid WOM includes content that addresses questions about the function of the product.

To test hypothesis 2, the target product was set as a movie, which is a hedonic good. We made four types of virtual websites. The ratio of positive to negative WOM was 9:1 when

the negative hybrid WOM does not mention the product characteristics for which the ideal values differ between consumers. The ratio was 8:2 when the negative hybrid WOM mentions the product characteristics for which the ideal values differ between consumers. The positive WOM in both cases was either benefit-centric WOM or benefit- and attribute-centric WOM. In addition, the layout was the same as that mentioned above. The negative reviews were randomly posted for both ratios.

**Measurement Scale**

The measures developed by Alpert and Kamins (1995) were adopted for product evaluation. The measures developed by Park and Kim (2008) were adopted to determine consumer expertise. In accordance with their measures, we adopted a 7-point Likert scale from “strongly agree” to “strongly disagree.” Hypotheses 1-1 and 1-2 were tested using 61 participants, with a 100% valid response rate. Hypothesis 2 was tested using 76 participants, with a 100% valid response rate.

**Analysis of Results for Hypothesis 1-1**

An analysis of variance was performed for the results of the hypotheses proposed above. For the model for hypothesis 1-1, the overall F-value was 0.57, which was not statistically significant. The R<sup>2</sup> value was 0.14.

Therefore, hypothesis 1-1 was not supported.

**Table 1.** Mean and standard deviation of product evaluation (Hypothesis 1-1)

**Positive WOM is composed of only benefit-centric WOM**

$X_1$ (Ratio of positive to negative reviews)	$X_2$ (Negative hybrid WOM addresses questions about price and quality)	Mean (Standard deviation)
9:1	Excluding	4.89 (1.03)
8:2	Including	5.06 (1.30)

**Table 2.** Mean and standard deviation of product evaluation (Hypothesis 1-1)

**Positive WOM composed of benefit- and attribute centric WOM**

$X_1$ (Ratio of positive to negative reviews)	$X_2$ (Negative hybrid WOM addresses questions about price and quality)	Mean (Standard deviation)
9:1	Excluding	4.86 (1.19)
8:2	Including	4.89 (1.25)

**Analysis of Results for Hypothesis 1-2**

For the model for hypothesis 1-2, the overall F-value was 2.58, which was statistically significant at the 10% level. The R<sup>2</sup> value was 0.38.

When the ratio of positive to negative reviews was 9:1 and the positive WOM was composed of only benefit-centric WOM, the mean of the product evaluation was 5.19 (standard deviation = 0.95).

When the ratio was 8:2 and the positive WOM was composed of only benefit-centric WOM, the mean of the product evaluation was 4.83 (standard deviation = 1.18).

When the ratio was 9:1 and the positive WOM was composed of benefit- and attribute-centric WOM, the mean of the product evaluation was 5.19 (standard deviation = 0.98).

When the ratio was 8:2 and the positive WOM was composed of benefit- and attribute-centric WOM, the mean of the product evaluation was 4.81 (standard deviation = 1.18).

Therefore, hypothesis 1-2 was not supported.

**Table 3.** Mean and standard deviation of product evaluation (Hypothesis 1-2)

**Positive WOM composed of only benefit-centric WOM**

$X_1$ (Ratio of positive to negative reviews)	$X_2$ (Negative hybrid WOM addresses questions about function)	Mean (Standard deviation)
9:1	Excluding	5.19 (0.95)
8:2	Including	4.83 (1.18)

**Table 4.** Mean and standard deviation of product evaluation (Hypothesis 1-2)

**Positive WOM composed of benefit- and attribute-centric WOM**

$X_1$ (Ratio of positive to negative reviews)	$X_2$ (Negative hybrid WOM addresses questions about function)	Mean (Standard deviation)
9:1	Excluding	5.19 (0.98)
8:2	Including	4.81 (1.18)

**Analysis of Results for Hypothesis 2**

For the model for hypothesis 2, the overall F-value was 2.91, which was statistically significant at the 5% level. The R<sup>2</sup> value was 0.49.

When the ratio of the positive to negative reviews was 9:1 and the positive WOM was composed by only benefit-centric WOM, the mean of the product evaluation was 5.20 (standard deviation = 1.10).

When the ratio was 8:2 and the positive WOM was composed of only benefit-centric WOM, the mean of the product evaluation was 4.39 (standard deviation = 1.37).

When the ratio was 9:1 and the positive WOM was composed of benefit- and attribute-centric WOM, the mean of the product evaluation was 4.73 (standard deviation = 1.18).

When the ratio was 8:2 and the positive WOM was composed of benefit- and attribute-centric WOM, the mean of the product evaluation was 4.74 (standard deviation = 1.43).

Therefore, hypothesis 2 was supported.

**Table 5.** Mean and standard deviation of product evaluation (Hypothesis 2)

**Positive WOM composed of only benefit-centric WOM**

$X_1$ (Ratio of positive to negative reviews)	$X_2$ (Negative hybrid WOM mentions product characteristics for which ideal levels differ among consumers)	Mean (Standard deviation)
9:1	Excluding	5.20 (1.10)
8:2	Including	4.39 (1.37)

**Table 6.** Mean and standard deviation of product evaluation (Hypothesis 2)

**Positive WOM composed of benefit- and attribute centric WOM**

$X_1$ (Ratio of positive to negative reviews)	$X_2$ (Negative hybrid WOM mentions product characteristics for which ideal levels differ among consumers)	Mean (Standard deviation)
9:1	Excluding	4.73 (1.18)
8:2	Including	4.74 (1.43)

## Discussion and Conclusion

### Summary and Results

It was found that in certain conditions, negative reviews do not have a negative impact on consumer product evaluation. Hypothesis 1-1 is not considered in the discussion, as the model was not significant ( $p > 0.10$ ).

In cases where a negative hybrid review addresses questions regarding the function of a product, even if there is a large proportion of negative reviews, there is no difference in consumer product evaluation compared to a case where the review does not address such questions. If there is a negative review about a product, the company should identify whether the review addresses questions about the function of the product.

In addition, if the content of a negative hybrid reviews refers to product characteristics wherein the ideal levels differ among consumers, even though there is a large proportion of negative reviews, there is no difference in consumer product evaluation compared to a case where the review does not refer to the ideal levels of product characteristics that differ among consumers. Companies need to accurately recognize the characteristics of their products. If the ideal level of the product characteristics varies among consumers, the product will not be very sensitive to negative reviews.

### Future Research

The limitations to this study are as follows. The following issues were identified regarding the survey method. In the consumer survey, the respondents were limited to college students because of time and budget constraints. In future, to increase the reliability of the analysis, those surveyed should not include only college students. In addition, according to the study of Kikumori (2015), a virtual review site was used. Hence, the reviews included both virtual ones and actual reviews. In future, more meaningful insights can be obtained by using actual reviews. Despite the limitations, the conclusions obtained here can be used as a meaningful cornerstone for future marketing research.

### References

- Alpert, Frank H. and Michael A. Kamins (1995), "An Empirical Investigation of Consumer Memory, Attitude, and Perceptions toward Pioneer and Follower Brands," *Journal of Marketing*, 59(4), 34-45.
- Babin, Barry J., William R. Darden, and Mitch Griffin (1994), "Work and/or fun: Measuring Hedonic and Utilitarian Shopping Value," *Journal of Consumer Research*, 20(4), 644-656.
- Day, George S. (1971), "Attitude Change, Media and Word-of-Mouth," *Journal of Advertising Research*, 11(6), 31-40.

- Doh, Sun-Jae M. S. and Jang-Sun Hwang (2009), "How Consumers Evaluate eWOM (Electronic Word-of-Mouth) Messages," *Cyber Psychology and Behavior*, 12(2), 193-197.
- East, Robert, Kathy Hammond, and Wendy Lomax (2008), "Measuring the Impact of Positive and Negative Word of Mouth on Brand Purchase Probability," *International Journal of Research in Marketing*, 25(3), 215-224.
- Engel, James F., Robert J. Kegerreis, and Roger D. Blackwell (1969), "Word-of-Mouth Communication by the Innovator," *Journal of Marketing*, 33(3), 15-19.
- Henning-Thurau, Thorsten, Kevin P. Gwinner, Gianfranco Walsh, and Dwayne D. Gremler (2004), "Electronic Word-of-Mouth via Consumer-Option Platforms: What Motives Consumers to Articulate Themselves on the Internet?" *Journal of Interactive Marketing*, 18(1), 38-52.
- Hirschman, Elizabeth C. and Morris B. Holbrook (1982), "Hedonic Consumption: Emerging Concepts, Methods, and Propositions," *Journal of Marketing*, 46(3), 92-101.
- Lee, Jumin, Do-Hyung Park, and Ingo Han (2008), "The Effect of Negative Online Consumer Reviews on Product Attitude: An Information Processing View," *Electronic Commerce Research and Applications*, 7(3), 341-352.
- Laurent, Gilles and Jean-Noel Kapferer (1985), "Measuring Consumer Involvement Profiles," *Journal of Marketing Research*, 22(1), 41-53.
- Mai, Kikumori (2015), "The influence that e word of mouth gives for the information acquisition and the product evaluation action of consumers"
- Mittal, Banwari (1989), "Must Consumer Involvement Always Imply More Information Search?" *Advances in Consumer Research*, 16, 167-172.
- Park, Cheol and Thae-Min Lee (2009), "Information Direction, Website Reputation and eWOM Effect: A Moderating Role of Product Type," *Journal of Business Research*, 62(1), 61-67.
- Park, Do-Hyung and Jumin Lee (2008), "eWOM Overload and Its Effect on Consumer Behavioral Intention Depending on Consumer Involvement," *Electronic Commerce Research and Applications*, 7(4), 386-398.
- and Sara Kim (2008), "The Effects of Consumer Knowledge on Message Processing of Electronic Word-of-Mouth via Online Consumer Reviews," *Electronic Commerce Research and Applications*, 7(4), 399-410.
- Park, Chan-Wook and Byeong-Joon Moon (2003), "Product Knowledge: Moderating Roles of Product Type and Product Knowledge Type," *Psychology and Marketing*, 20(11), 977-997.
- Sussman, S. W. and W. S. Siegal (2003), "Information Influence in Organizations: An Integrated Approach to Knowledge Adoption," *Information Systems Research*, 14, 47-56.
- Sen, Shahana and Dawn Lerman (2007), "Why Are You Telling Me This? An Examination into Negative Consumer Reviews on the Web," *Journal of Interactive Marketing*, 21(4), 76-96.
- Sheth, Jagdish N. (1971), "Word-of-Mouth in Low-Risk Innovations," *Journal of Advertising Research*, 11(3), 15-18.
- Vaughn, Richard (1980), "How Advertising Works: A Planning Model," *Journal of Advertising Research*, 20(5), 27-33.
- Walker, Beth, Richard Celsi, and Jerry Olson (1987), "Exploring the Structural Characteristics of Consumers' Knowledge," *Advances in Consumer Research*, 14, 17-21.
- Xia, Lan and Nada N. Bechwati (2008), "Word of Mouth: The Role of Cognitive Personalization in Online Consumer Reviews," *Journal of Interactive Marketing*, 9(1), 3-13.
- Zaichkowsky, Judith L. (1987), "The Emotional Aspect of Product Involvement," *Advances in Consumer Research*, 14, 32-35.