The effects of consumer knowledge on message processing of electronic word-of-mouth via online consumer reviews

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Abstract

This paper investigates one type of electronic word-of-mouth (eWOM), the online consumer review. The study considers two components of review structure: the type and the number of reviews. Using the cognitive fit theory, we show that the type of reviews can be a key moderating variable to explain the inconsistent relationship between consumer expertise and WOM in previous research. This study examines which type of reviews cognitively fits consumers with a high (low) level of expertise. Using the elaboration likelihood model (ELM), we also investigate that the effects of the type of reviews and the number of reviews. The hypotheses were tested using a 2 (levels of expertise) × 2 (types of reviews) × 2 (number of reviews) mixed design including two control conditions. The results show that the effect of cognitive fit (the type of reviews) on purchase intention is stronger for experts than for novices while the effect of the number of reviews on purchase intention is stronger for novices than experts. This paper delivers managerial implications for online sellers providing consumer created reviews along with advertisements.
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1. Introduction

A product progresses through a sequence of stages from introduction to growth, maturity, and decline [1]. This sequence is known as the product life cycle. However, not all products go through each stage. In fact, many products fail even in the introduction phase, and the failure rate is as high as 50% [2,3]. To avert failure at various stages of the life cycle, marketers' marketing mix strategies should change as their products go through each stage because consumers at various stages desire different types of information. Consumers in the early stage want to be provided with information on attributes because they are innovators who are seeking technical information. Meanwhile, consumers in the mainstream are relatively less knowledgeable,

so they want to get information on benefits to evaluate a product. However, it is not easy for managers to recognize when and how they should change their method of providing product information because the stages are not definitely discrete. Then, do marketers have to provide information on both attributes and benefits in their advertisements? First, providing both attributes and benefits information in the same advertisement can be costly. Moreover, previous research shows that presenting both attributes and benefits messages may not be as effective as providing messages focused on either attributes or benefits information [4].

Word-of-mouth (WOM) is an effective way to help marketers overcome these limitations [5] because WOM provides product information from the user perspective in each stage. Since review posters are usually former users at any given stage, they can write about a product in a way that potential consumers in a particular stage can

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effectively process. Therefore, WOM communication is effective in providing the right type of information to each customer segment. However, traditionally marketers cannot effectively set strategic plans centered on WOM because the effects of WOM are very difficult to trace. Recently, the Internet has emerged as a new channel of WOM [6]. Different from traditional WOM, WOM on the Internet, called electronic word-of-mouth (eWOM), is measurable since comments on a product are written and available in the websites [7]. Also, some types of eWOM messages such as online consumer reviews in Amazon.com are also controllable because marketers can decide whether to allow consumer reviews to be shown or not, and if they are shown marketers can offer a specific review format in order to guide consumers to post their opinions in the way they want. Thus, marketers can apply marketing strategies for eWOM more strategically than traditional WOM.

The eWOM information providing both product information and recommendations can satisfy various consumer segments. Consumers in the early market called early adopters want product attribute information to figure out the importance of a product with their own criteria. On the other hand, consumers in the mainstream market are relatively less knowledgeable so they prefer product benefit information [8]. They also consider peripheral cues, such as product popularity or trends, as being important. Through eWOM activity, consumers in the early market can obtain supplement product information, while consumers in the mainstream market can get user-oriented information or a signal of product popularity. Therefore, eWOM has great potential for helping a product transition from the early market to the mainstream market if it can be managed well. Because of such importance and popularity of eWOM communication, studies in the last few years are actively examining the effect of eWOM on consumer behavior.

Previous research on WOM communication shows an inconsistent relationship between expertise and WOM behavior. Some studies show a positive relationship between the level of expertise and WOM [9,10], while other studies suggest that there is a negative relationship [11,12]. Our study attempts to explain these contradictory results by considering the specific type of eWOM message as a moderator. Consumers use different message-processing strategies depending on their level of expertise. According to the cognitive fit theory [13], when the information type matches the consumer information-processing strategy, cognitive fit occurs. Thus, the type of message is an important factor for analyzing the relationship between consumer expertise and eWOM. The study investigates which type of consumer review cognitively fits the processing strategies depending on the level of consumer expertise. In addition, with the elaboration likelihood model (ELM), the study examines for which consumers the cognitive fit is more important for decision making.

The number of reviews is another important factor of review structure. The number of reviews representing the number of previous consumers can be a signal of product popularity. In addition, an increase in the number of reviews relates to an increase in the amount of information. Thus, the number of reviews also influences review message processing. ELM can also explain the effect of the number of reviews depending on the level of expertise. According to ELM, consumers with low expertise are more likely to focus on a peripheral cue such as the number of arguments, while consumers with high expertise are more likely to engage in effortful cognitive activity through the central route, and they focus on the argument quality [14].

This study proposes several hypotheses and conducts an experiment to explore how consumers process online consumer reviews depending on the level of expertise. Specifically, focusing on the positive online consumer reviews, this study examines the effect of review structure – the type and the number of reviews – on consumer decision making. The key research questions are as follows:

(1) What is the relationship between the level of expertise and the impact of eWOM? That is, for which consumer (experts vs. novices) is the effect of online consumer reviews stronger?
(2) Which type of online consumer reviews (attribute-centric vs. benefit-centric reviews) fit consumers with a low (high) level of expertise?
(3) Which consumer is the effect of the review fit on the purchase intention stronger for?
(4) Which consumer is the effect of the number of reviews on the purchase intention stronger for?

The above questions will be highly covered throughout the paper. With the analysis of previous research, the predicted answers of the questions will be hypothesized in the experiment. The contributions of this research are twofold. From the theoretical perspective, the study integrates principles from different domains, which help us broaden the understanding of the effects of online consumer reviews. From the managerial perspective, our findings have implications for both marketers and designers of e-commerce web sites in terms of how to manage online consumer reviews.

2. Theoretical background and hypotheses

2.1. The relationship between eWOM and consumer expertise

Prior to the Internet era, consumers shared each others' product-related experiences through traditional WOM (e.g. discussions with friends and family) [15]. Today, the Internet makes it possible for consumers to share experiences and opinions about a product via eWOM activity. Godes and Mayzlin [7] show that eWOM can overcome the limitation of traditional WOM. In traditional WOM communication, the information is exchanged in private conversations, so direct observation has been difficult. However, online conversations may offer an easy and