

# A RESEARCH MODEL FOR THE STUDY OF ONLINE REVIEWS AND INFORMATION ADOPTION

Tsan-Ching Kang  
Eberhardt School of Business  
University of the Pacific  
Stockton, CA 95211  
209-423-4703  
tc.kang@gmail.com

\*Albert H. Huang  
Eberhardt School of Business  
University of the Pacific  
Stockton, CA 95211  
209-946-7494  
ahuang@uop.edu

Shin-Yuan Hung  
Department of Information Management  
National Chung Cheng University  
Chia-Yi, Taiwan  
05-2720411-34601  
syhung@mis.ccu.edu.tw

**Abstract:** Previous studies of online reviews focus on the relationship between the review and purchasing intention. In this paper, literatures of online reviews, conformity behavior, and online recommendation are reviewed to offer a foundation for exploring how online purchasing intention and information adoption are influenced by online reviews. In addition, this paper provides several propositions for studying the role of online reviews on information adoption.

## INTRODUCTION

Recently, due to the popularity of online reviews, it has become an important source of product information for consumers. Many consumers believe that these reviews are credible, because they come from actual users. Some consumers perceived online reviews to be as trustworthy as information on the official product web sites (ACNielsen 2007). Others believe that consumer-created information is likely to be more credible than seller-created information (Wilson and Sherrell. 1993). Online reviews may start by one user based on personal usage experience. The initial message may then attract others to post responses, additional information, and other messages (Chen and Xie 2008; Lee et al. 2008).

In spite of encouraging research results found in previous studies (Chevalier and Mayzlin 2006; Duan et al. 2008, 2009), they only explain when online reviews may benefit companies. The detailed reasons why online reviews relate to sales and how they affect purchasing intention are rarely explored. What information online consumers adopt may explain the reasons why some consumers buy a product and others do not. When online consumers make a purchasing decision, they may only refer to the information that they would like to adopt or trust. Thus, understanding the process of online information adoption may help explore the complicated relationship between online reviews and product sales further.

Given the importance and potential research opportunities of online reviews, this paper synthesizes previous studies related to the topic and proposes a model for further research. The proposed model incorporated the Heuristic-Systematic Model (HSM) into the discussion of information adoption and online reviews. According to HSM, the truthfulness and value of a message can be examined heuristically and/or systematically (Chaiken 1980). When processing messages in a heuristic mode, people make a quick decision according to experiences or learned knowledge structures. When processing messages in a systematic mode, people evaluate the message content for completeness, consistency, and logics. Heuristic information process is usually faster than systematic information processing. The two information processing models could occur concurrently (Chaiken 1980; Chaiken et al. 1989). Based on these assumptions, HSM could be used to help understand the formulation of information adoption and subsequently help understand how online reviews affect people's attitude toward a product (Ferran and Watts 2008).

## **THE INFLUENCES OF ONLINE REVIEWS**

Consumers believe that online reviews are more credible than vendor-generated information, because they are the voices of other consumers. Consequently, online reviews might have a considerable influence on consumers' attitudes toward a product (Chiou and Cheng 2003). Potential consumers may become more curious and pay more attention to products with many online reviews. A large number of reviews helps a product distinguish itself from other products that have not received as much attention (Godes and Mayzlin 2004; Park and Kim 2008). Studies also have shown that a large number of reviews positively affected sales (Chevalier and Mayzlin 2006).

Due to the positive relationships found between online reviews and product sales, many vendors sponsor online review forums for their own products. However, not all online review forums are beneficial to sales. The timing to elicit online reviews is critical. Only in the early phases of the lifecycle, when most consumers are unfamiliar with the product, online reviews may help increase sales volume. Delaying online reviews could be a better strategy, only if the number of expert users is relatively large and the cost of the product is low (Chen and Xie 2008). Product brand is another factor that affects the quantity of online reviews. Products of a highly rated brand in the early phases of product lifecycle are more likely to have additional reviews than products of a poorly rated brand (Amblee and Bui 2008).

### **Conformity behavior**

There are two situations when conformity behavior happens. First, a sufficient amount of group pressure may influence what the individual believes. Second, in the absence of objective standards or accepted authority, an individual will turn to other people for judgments and evaluations. The individual may ask anyone who is available on that circumstance for assistance. (Howard 1963). Thus, group characteristics such as group size and the proportion of the group that have already acted have an influence on the conformity behavior (Granovetter and Roland 1988; Sternthal et al. 1994). The conformity effect may explain why a large volume of online reviews could have a direct and rapid impact on users (Huang and Chen 2006). Consumers may use the majority views as heuristic cues without detailed message processing (Baker and Petty 1994).

### **Online reviews and online recommendation**

Online recommendation usually provides what product to buy to online customers through personalized computer agents based on consumers' needs (Maes et al. 1999). Like, online reviews, online recommendation also can increase firms' revenues, overcome information overload and improve their decision making (Häubl and Trifts 2000; Shaffer and Zhang 2000). However, the influencing process and major consideration of online recommendation are different from online reviews.

The major concern of online recommendation is trust, which should put in a higher priority than online reviews. Since firms provide online recommendations, they may provide online recommendations either on the benefits of online consumers or on the benefits of firms (Wang and Benbasat 2005). Trust is closely related to the adoption of online recommendations. To understand the complicated adoption phenomenon, the relationship between trust and adoption (Wang and Benbasat 2005), trust beliefs (Komiak and Benbasat 2006; Wang and Benbasat 2007), providers' credibility (Xiao and Benbasat 2007), the reason to trust (Wang and Benbasat 2008), and the process of trust and distrust (Komiak and Benbasat 2008) are discussed. Most researches suggest that firms should build trust among online consumers before giving them online recommendations.

## **A RESEARCH MODEL FOR THE STUDY OF ONLINE REVIEWS**

To discover the relationship between online reviews and purchasing intention, this study explores the role of online reviews on information adoption. Information adoption is the extent that people believe the received information is meaningful and usable, after assessing its validity (Zhang and Watts 2008). When consumers adopt different information to form purchasing preferences, their purchasing intention and behaviors may be different. To study the process of information adoption may help to understand the process of formulating preferences for online products and serve as the basis of understanding their behaviors.

In social psychologists, a frequently used model of attitude change is the heuristic-systematic model (HSM) (Chaiken 1980; McGuire 1969; Petty and Cacioppo 1986). HSM is often used in seeking validity of information and to attain accurate views of the information (Chaiken 1980; Chaiken et al. 1989). HSM encompasses two modes – heuristic and systematic processing.

### **Heuristic processing of online information**

Among the heuristic cues, source credibility is one of important factors that might affect information adoption (Sussman and

Siegal 2003; Tormala and Clarkson 2007; Zhang and Watts 2008). For example, the source credibility will affect adoption of e-mail advices (Sussman and Siegal 2003) and online postings (Zhang and Watts 2008). For online product information provided by vendors, its influences may depend on people's perception of vendors. The higher the credibility of vendor is, the more positive the attitude of information adoption is. Thus, this study proposes:

P1: Information credibility of vendor supplied information affects information adoption.

### **Systematic processing of online information**

Systematic processing is the use of a comprehensive, analytic method to access, scrutinize, and integrate all useful information to form their judgment (Chaiken et al. 1989). In previous researches, systematic processing is often assessed by argument quality, which measures the strength or plausibility of persuasive argument (Eagly and Chaiken 1993; Sussman and Siegal 2003; Zhang and Watts 2008). Argument quality may also include checking the completeness, consistency or accuracy of information (Sussman and Siegal 2003). The assessing of argument quality for online information is the same as offline information. Online consumers can judge the validity of online information by checking the logical arguments, comparing to common sense, and mapping to own knowledge. The more argument quality online consumers perceived in the online information, the more likely they will confidently adopt the information and follow the suggestion of the information (Eagly and Chaiken 1993; Zhang and Watts 2008).

P2: Information quality of vendor supplied product information affects information adoption.

### **The processing of online reviews**

The processing result of online reviews may affect the information adoption of the product information offered by vendors. Online consumers who read online reviews should have a larger opportunity to raise their cognitive capacity and change the perception of online product information offered by vendors. Thus, heuristic and systematic processing of online product information may be affected by other online reviews. The perceived vendor credibility and product argument quality may be moderated by the perceptions of online reviews.

P3a: The credibility of vendor supplied product information will have less impact on its information adoption, when online consumers perceive higher source credibility of its online reviews.

P3b: The credibility of vendor supplied product information will have less impact on its information adoption, when online consumers perceive higher argument quality of its online reviews.

P4a: The quality of vendor supplied product information will have less impact on its information adoption, when online consumers perceive higher source credibility of its online reviews.

P4b: The quality of vendor supplied product information will have less impact on its information adoption, when online consumers perceive higher argument quality of its online reviews.

## **CONCLUSIONS**

To understand the role of online reviews on information adoption better, this paper proposes a research model based on HSM. Through the identification of two distinctive information processing - heuristic processing and systematic processing, the interplay between product information and online reviews can be examined carefully. This will also help understand the psychological activity of consumers when they read online reviews and make the purchasing decisions. In this way, researchers can investigate influences of online reviews on information adoption further and companies can have better understanding and utilization of online reviews.

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