Information adoption from online review sites for decision-making

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Abstract - This study explored the common phenomenon of using online review sites to acquire information for decision-making. Nowadays, online review sites such as Yelp in the US and OpenRice in Hong Kong are gaining popularity for consumers to share their post-purchase experiences. Based on the elaboration likelihood model (ELM) and social influence theory (SIT), we investigate how participating in online review sites influences consumers’ purchase decisions. Our population comprises consumers who are users of OpenRice. To test our model, we collected 316 valid questionnaires with a response rate of 30%. We find that the source credibility and argument quality of a review, and the reader’s perceived informational social influence and normative social influence have significant effects on information adoption for decision-making.

Keywords: information adoption, social influence theory, elaboration likelihood model, online review sites.

1 Introduction

With the advancement of Web 2.0, virtual communities have emerged in which individuals are able to express their views and influence others. Consumers can now exchange their views on products/services in online communities such as group buying sites, discussion forums, social networking sites, and online review sites (Trusov, Bucklin & Pauwels, 2009; Zhang et al., 2014). A recent survey by Brightlocal suggested that online reviews can have a powerful influence on consumers. The survey showed that 92% of consumers read online reviews and that 40% of consumers form an opinion by reading just one to three reviews. As a result, online reviews are becoming an increasingly important source of information for consumers and can enhance the effectiveness of their purchase decisions.

The information systems (IS) literature primarily focuses on the persuasiveness of the information in online review sites (Ho & Bodoff, 2014; Shu & Scott, 2014; Zhu, Chang, & Luo, 2015). According to the elaboration likelihood model (ELM), there are two information processing routes; the central route, which suggests that individuals adopt heuristic and simple decision rules when making judgments (Petty & Cacioppo, 1986; Tam & Ho, 2005). The persuasiveness of the information contained in a review stems from the argument and the reviewer’s credibility. Sussman and Siegal (2003) suggested two determinants of information adoption: the quality of the argument as a central influence, and the source credibility as a peripheral cue. They emphasized the effects that the source credibility and argument quality of reviews have on the perceived usefulness of a review, and hence the level of information adoption.

Few IS studies have investigated information adoption for decision making from a reader’s perspective. In a seminal study on how purchase decisions are influenced by the perceived social pressure of consumers on group-buying sites, Kuan, Zhong and Chau (2014) found that informational social influence and normative social influence are closely associated with consumers’ purchase decisions. In this study, we attempt to extend our knowledge of the effect of the reader’s perceived social pressure on information adoption for decision-making.

Social influence refers to the social pressure that leads to changes in an individual’s thoughts, feelings, attitudes, and/or behavior (Rashotte, 2007). Deutsch and Gerrard (1955) proposed social influence theory (SIT) to distinguish two types of social influence, informational and normative. Informational influence refers to the extent to which people accept the information obtained from another as evidence of reality. In contrast, normative influence is defined as the degree to which the desire to conform to the perceived expectations of the self, another person, or the group influence individual decision-making. Both forms of social influence lead to conformity, which involves a change in attitudes, beliefs, and behavior due to the real or imagined influence of others (Kuan, Zhong, & Chau, 2014; Tsai & Bagozzi, 2014; Aronson, Wilson and Akert, 2010; Hogg and Vaughan, 2005).

Moreover, it remains unclear whether perceived social pressure interacts with the source credibility and argument quality of the reviews in influencing information adoption for decision-making. We further suggest that there is a fit between reviewer and reader with respect to information adoption. The concept of fit emphasizes the importance of the overlap between an individual and the environment (French & Cobb, 1974). Moreover, fit may exist according to the extent to which the person matches the environment (Hardin et al., 2014). According to the routes of elaborating information suggested in the ELM, individuals process information based on the source credibility and argument quality of the reviewer’s persuasive message. We believe that information adoption requires matching the reviewer’s persuasive message with the reader’s perceived social pressure. In other words, the reader’s information adoption is reinforced by his or her perceived social pressure. In this regard, we explore the central and peripheral routes of information adoption and investigate the moderating effects of social influence on the two information processing routes.
Accordingly, we address three research questions in this study. 1) What factors underlie the information adoption in virtual communities? 2) How does information fit with decision making from the perspective of the reviewer and reader? 3) To what extent do online review sites influence individuals’ decision choices?

2 Research model

The ELM is a dual-process model for explaining the phenomenon of social information processing (Zhang et al., 2014; Petty, Cacioppo, and Schumann, 1983). The model suggests that different readers are willing to engage in the elaboration of particular information to different extents, and the difference affects the level of change in attitude, along with other factors. According to Perloff (2003), likelihood refers to the probability that an event will occur and elaboration signifies the extent to which individuals engage with the information contained in a communication. Because of the level of cognitive effort involved in information processing, readers do not elaborate every piece of information, and some readers elaborate the information heuristically.

The ELM states that there are two distinct routes in which the information from messages is processed, namely, the central route and the peripheral route (Perloff, 2003). The central route relates to the elaboration of information from the cognitive understanding of the arguments conveyed (Petty et al., 1983). The readers tend to evaluate and examine the logic of the arguments in detail based on their past experiences.

Due to a shortage of time and effort, many readers do not read the arguments thoroughly (Tang, Jang, & Morrison, 2012). Hence, they rely on the peripheral route, which involves making an inference heuristically without much cognitive effort. These readers depend on simple cues such as the professionalism and popularity of the source for their decision making, instead of evaluating the logical correctness of the arguments.

![Theoretical framework](image.png)

**Figure 1: Theoretical framework**
Alternatively, social influence refers to how the individuals in a social network feel compelled to conform to community behavior patterns as a result of the behavior of others (Venkatesh & Brown, 2001). According to SIT (Deutsch and Gerard, 1955), there are two types of social influence: informational social influence and normative social influence. Informational social influence refers to the tendency “to accept information obtained from another as evidence about reality,” while normative social influence refers to the tendency “to conform to the expectations of another person or group.” Social influence can be perceived as the pressure from social networks to make a certain decision (Lu, Yao & Yu, 2005).

In this study, we explore our theoretical model, which is shown in Figure 1, by examining the underlying factors that influence the information adoption for decision making, and the moderating effects of informational social influence and normative social influence.

### 3 Hypothesis development

Sussman and Siegal (2003) used the ELM to explain information adoption in the context of using email to seek advice, and indicated that there are two routes for information adoption: the central route based on argument quality and the peripheral route based on source credibility. Argument quality, which is defined as the strength of persuasion and usefulness of the information, is based on the content, accuracy, format, and timeliness of the information (Bhattacherjee & Sanford, 2006; DeLone & McLean, 2003; Negash, Ryan, & Igbaria, 2002). For example, a review that provides more photos, descriptions, and persuasive comments about a restaurant will likely be evaluated in detail and adopted.

Via the peripheral route, the reader adopts information based on the source credibility, which depends on the trustworthiness and competence of the reviewer (Chaiken, 1980). Online review sites such as Yelp in the US or OpenRice in Hong Kong allow users to post reviews and rank reviewers according to their contributions. The higher the number of reviews, the higher the ranking of the reviewer. Moreover, the ranking of a reviewer will be higher if his/her reviews are recognized by the host of an online review site. The ranking provides a cue for the source credibility of a reviewer, and reviews tend to be adopted by readers based on their perception of the rank, trustworthiness, and competence of the reviewer.

According to the ELM, the argument quality and source credibility of a review are essential for the reader to decide whether to adopt the information in the review. In this regard, we suggest the following hypotheses:

**H1.** The argument quality of the reviews posted by reviewers is positively related to the level of information adoption for decision making.

**H2.** The source credibility of the reviews posted by reviewers is positively related to the level of information adoption for decision making.

**H3.** The informational social influence perceived by a reader is positively related to the level of information adoption for decision making.

**H4.** The normative social influence perceived by a reader is positively related to the level of information adoption for decision making.

### 4 Conclusions

Consumers’ decision making processes in making purchase decisions involve adopting information from others.
Nowadays, people are becoming more involved in virtual communities, and it is very common for people to search for information on online review sites before making purchase decisions. We argue that the amount of information an individual adopts depends on two perspectives: the reviewer’s persuasive message and the reader’s perceived social pressure. Our findings show that the level of information adoption for decision making is enhanced when the nature of the reviewer’s message fits the reader’s characteristics. Specifically, there is an interaction effect between argument quality and informational social influence such that a high level of informational social influence also enhances the positive effect of the argument quality on the level of information adoption for decision making. In the case of readers with a high degree of normative social influence, our findings show that source credibility is more effective in increasing the level of information adoption for decision making. Thus, marketing managers may consider the characteristics of the target consumers when deciding to use online review sites as a third party persuasion technique.

5 References


