Impact of Online Review Grouping on Consumers’ System Usage Behavior: A System Restrictiveness Perspective

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ABSTRACT

Information overload is one of the major challenges for online shoppers. One possible solution to this aforementioned problem is to take advantage of the interactive decision aids (IDAs). Prior studies on IDAs have mainly focused on information overload problems caused by the products (e.g., recommendation agents) and hence, have overlooked the information overload problems related to online reviews. However, online reviews are becoming more popular and turning into a major information source in consumer purchase decisions. To bridge this gap, this study investigates the effect of message grouping, an IDA approach supporting review browsing, onto the consumer’s information processing and system usage intention. An experiment with a one-factor, three-level design was conducted to test the proposed research model. It is noted that grouping customer reviews into task-related categories significantly increases users’ perceived usefulness, system satisfaction and intention to use the system next time. However, grouping customer reviews into task-distracting categories may significantly decrease users’ perceived usefulness, system satisfaction and intention to use the system.

KEYWORDS

Electronic Commerce, Interactive Decision Aids, Message Grouping, Online Review, System Restrictiveness, System Usage

1. INTRODUCTION

Online reviews have become a major information source in making consumers’ purchase decisions (Dellarocas, 2003; Godes & Mayzlin, 2004; Zhao, Yang, Narayan, & Zhao, 2013). Many consumers utilize online reviews when making their purchase decisions, and for this reason, reviews are widely considered to be more credible than advertisements and other seller-generated product information (Nielsen, 2007). Previous studies in this subject field have also noted that online reviews may have a significant influence onto the consumers’ purchase decisions (Goh, Heng, & Lin, 2013; Zhang, Zhao, Cheung, & Lee, 2014) and also retailers’ sales (Chevalier & Mayzlin, 2003; Gu, Park, & Konana, 2012; Ho-Dac, Carson, & Moore, 2013; Lee, Lee, & Shin, 2011; X. Lu, Ba, Huang, & Feng, 2013; Sun, 2012). To this end, online reviews have increasingly become an important resource that both consumers and retailers should seriously take into account.
Information overload is one of the major challenges for online shoppers and this simply because electronic commerce tends to increase the amount of information that customers must deal with before they are able to select the particular items to meet their specific needs (Schafer, Konstan, & Riedi, 1999). One solution to this information overload problem is to utilize the interactive decision aids (IDAs). According to earlier research, the source of information overload can be either products-oriented (e.g., too many candidate products to evaluate) or reviews-oriented (e.g., too many reviews to read). However, previous studies on IDAs have mainly focused on the recommendation agents; for example, tools that address the problem of product information overload by eliciting users’ preferences; to carry out a set of search and evaluation operations on behalf of users, and thus provide the adequate product recommendations (Maes, Guttman, & Moukas, 1999; Wang & Benbasat, 2009; Xiao & Benbasat, 2007). With the rapid development of electronic commerce and social media technologies, the volume of customer reviews appeared on the Internet is increasing at an unprecedented speed. Unfortunately, research on IDAs to address the problem of information overload related to reviews has been lacking in this subject field.

Consumers are using online reviews to comment their purchasing decisions (Vollmer & Precourt, 2008). Such reviews can help the consumers to construct a set of criteria for evaluating a product and thus reduce their relative, cognitive costs of making a purchase decision. As suggested by Liu (2011), if the information is presented properly, online product reviews can help consumers to (1) form an unbiased understanding of a specific product, (2) construct a set of criteria for evaluating a product, (3) make an accurate choice, and (4) reduce the cognitive costs of making such a choice. However, traditional online product review systems that organize messages in a single, linear way are rather difficult to meet these aforementioned goals. Many previous electronic word-of-mouth studies found that review ratings may not be associated with product sales, but that the number of reviews is significantly associated with product sales (Duan, Gu, & Whinston, 2008; Liu, 2006). A possible explanation to this phenomenon is that in the highly information overloaded context, people tend to use the peripheral/heuristic way (e.g., source credibility and quantity) rather than a central/systematic way (e.g., argument quality, valence and sidedness) to process the online reviews (Cheung & Thadani, 2012). However, this interesting finding does not imply that the content of review is useless. In contrast, it may imply that the online review is a gold mine which is not fully utilized by consumers (Archak, Ghose, & Ipeirotis, 2011). While consumers encounter too many reviews beyond their information-processing ability (Miller, 1965), they tend to retreat back to applying cognitive simplification strategies (e.g., read either several of the most recent reviews or random reviews) that decrease users’ cognitive load but usually lead to such negative consequences as an inappropriate information selectivity (Liu et al., 2011) and hence, decreased decision quality (Streufert, 1973). To avoid this aforementioned problem, many electronic commerce websites thus provide IDAs that group, sort, filter and/or summarize review messages to help consumers alleviate the problem of information overload from the available online reviews. The online review IDA is important for both customers and electronic commerce retailers. In one hand, it helps users to mitigate the inappropriate information selectivity, build an appropriate preference over attributes and products, and finally make a correct purchase decision. In the other hand, it helps electronic commerce retailers to improve the website usability and thus attract more frequent visits. Given the rich volume and high influence of online reviews, it is interesting to investigate the effectiveness of IDAs in supporting review browsing and their impacts on consumers’ system usage.

Message grouping which can be used to classify messages into several categories to assist users to browse, is an important approach to alleviate the problem of information overload from online reviews. Many prior studies have explored different types of messaging grouping and the various examples include the grouping by user ratings (Mudambi & Schuff, 2010; Yin, Bond, & Zhang, 2014), by topics (Lu & Zhai, 2008), by various aspects (Jo & Oh, 2011; Yan, Xing, Zhang, & Ma, 2015), by sentiment polarity (Maks & Vossen, 2012; Turney, 2002), by attitude polarity (Thomas, Pang, & Lee, 2006), by subjectivity (Riloff & Wiebe, 2003; Yu & Hatzivassiloglou, 2003) or by helpfulness
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