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# Co-Navigability, Tracking Fulfillment and Autonomy in Collaborative Online Shopping

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## ABSTRACT

Shopping is generally a social behavior, frequently done while accompanied by friends or family. Lack of social interaction is considered to be a critical barrier that defers customers from shopping online. As a new paradigm of e-commerce, collaborative online shopping (COS), defined by Zhu et al. (2010) as “the activity in which a customer shops at an online store concurrently with one or more remotely located shopping partners”, may dramatically improve customers online shopping experience by fulfilling their needs to shop in a social and collaborative way (O’Hara and Perry, 2001).

Collaborative online shopping would not only benefit online customers, but also furnish online vendors with more potential revenues, since shoppers accompanied by others generate more need recognition and spend more than when shopping alone (Kurt et al., 2011). Collaborative online shopping is emerging as an instrumental way to largely increase customer satisfaction and generate more revenues for online vendors. For example, according to Internet Retailer (2010), collaborative online shopping helps drive 15% increase in sales at a leading German skincare website.

Although collaborative online shopping is very common in everyday life (Huang et al., 2012), it is not well supported by current systems (Benbasat, 2010). Due to the very few findings on COS, both the guidelines for system designers and our understanding towards the COS mechanisms are rather limited.

To fill this research gap, we argue that when customers collaboratively shop with their companions online, they act both as individuals and as members of the shopping group. As shopping group members, customers require information about each other to maintain awareness; while as individuals, they demand flexible means for interacting with the website and the product information (Gutwin and Greenberg, 1998). In consideration of the paramount benefits for online customers/vendors and the deficiency in research findings, much more effort is desired for researchers to comprehensively explore how systems could be designed to better support COS and improve collaborative online customers’ shopping experience by balancing both the group needs (e.g. share and discuss information with each other) and the individual needs (e.g. freely browse product information without much

interruption from partners).

In this paper, we demonstrate how insights from decades of social psychology and communication research help answer such questions. We review theories on how common ground and self-determination fulfill both group needs and individual needs in COS context and show empirically that functional mechanisms derived from these theories have large influences on collaborative online customers’ shopping process satisfaction and outcome satisfaction. Accordingly, we hypothesize that the three elicited functional mechanisms (i.e. co-navigability, tracking fulfillment, and autonomy) would improve online customers’ collaborative shopping experience by increasing their process satisfaction and outcome satisfaction.

To test the hypotheses, a lab survey was conducted (with 84 student subjects for pilot study to refine the measurement and instruction document; and 108 student subjects for the main study to test the proposed hypotheses).

The results reveal that the hypotheses are supported, i.e.: perceived co-navigability has positive effect on both process satisfaction and outcome satisfaction of customers; perceived tracking fulfillment and perceived autonomy have positive effect on customers’ process satisfaction.

This study would enhance our understanding of COS and provide practical implications for system designers. Specifically, our study makes three contributions to information systems literature on COS research. First, from a theoretical perspective, grounded on common ground theory and self-determination theory, we identify three key functional mechanisms that could improve customers’ collaborative online shopping experience, i.e. co-navigability, tracking fulfillment, and autonomy. Second, this study empirically tests the different effects of co-navigability, tracking fulfillment and autonomy of the website on collaborative online customers’ process satisfaction and outcome satisfaction. Third, this study provides helpful insights for online vendors and website designers to develop appropriate website features according to different purposes.

To the best of our knowledge, this is one of the first empirical studies on collaborative online shopping with survey method to explore the COS functional mechanisms to improve collaborative companions’ online shopping experience.