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# Curbing Shopping Cart Abandonment in C2C Markets—An Uncertainty Reduction Approach

(Abstract Only)

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#### INTRODUCTION

After two decades of dazzling proliferation of digital markets, it is widely recognized that such growth is drastically slowing down in the coming years, especially in those developed economies (BCG 2016). On the other hand, however, online sellers are continuously damaged from the tremendous loss caused by shopping cart abandonment (SCA). SCA is the phenomenon that a customer puts items into her virtual shopping cart in the online buying website, but somehow choose not to proceed with payment eventually (Egeln & Joseph 2012). Statistics by eMarketer revealed a shocking SCA rate as around 70% on average, causing a loss of over \$18 billion a year (eMarketer 2016).

SCA has drawn extensive intention from marketers (Koufaris 2002; Reichheld & Schefter 2000). In contract, it is surprising to find that there is little empirical research studying the underlying mechanisms of SCA phenomenon (with only a few notable exceptions, see (Fenech 2002; Fernandes 2012; Kukar-Kinney & Close 2010; Rajamma *et al.* 2009)). The myriad of e-commerce and marketing studies examine the antecedents of consumers' "intention to buy" in general, they face challenge to adapt to understanding SCA behavior. Curiously, empirical research about the buyer's driving/curbing force of "crossing the finish line" is nascent. Against this backdrop, we herein conceptualize *Intention to Checkout* as the subjective probability that a customer will proceed with payment under the circumstance that products have already been chosen but not yet payed (termed the "post-cart" stage hereafter). In the current research, we contend that risk concerns caused by various uncertain situations become the dominating heuristics for payment decision making (Kahneman & Tversky 1979). Whilst a buyer having decided the choice of seller and products, her primary interest about the goods, and her initial attitude towards the website and the vendor, are largely shaped. The click of "pay" button hence leads directly to the outcome of the transaction, either positive or negative, triggering the buyer's vigilance against potential losses.

Therefore, this research anchors on one specific theoretical perspective, buyer perceived uncertainty, to investigate SCA phenomenon. In order to understand how uncertainty influences SCA, our first objective is to address this gap by *studying the effects of different types of uncertainty perception on intention to checkout during post-cart stage*. Drawing on uncertainty reduction theory (URT) from communication literature, we posit that buyers can employ three strategies (i.e., passive, active, and interactive strategies) to acquire information in order to mitigate uncertainty encountered during the post-cart stage. we want to address a prominent question for researchers and marketers, viz.: *what CMC facilities are most effective in reducing which type of uncertainty perception during the post-cart stage?* 

In line with URT, we propose that three core characteristics of C2C sellers enable the aforementioned communication strategies: (1) effective product descriptions, (2) interactivity, and (3) effective feedback systems, respectively. We conceptualize effectiveness of product descriptions as the capability of the buyer to describe product details and help buyers familiarize with the product. Following the conceptualization of interactivity in literature (Liu 2003; Teo et al. 2003), interactivity is defined as the quality of buyer-seller interaction. Finally, we define "effectiveness of feedback systems" as the extent to which the feedback systems of can provide a large volume of unselective feedback opinions towards past transactions. Notably, because the perception of how effective these communication facilitators can vary across different individuals, we consider perceptual rather than objective effects herein. Thus, we consider the following three constructs as the direct predictor of uncertainty, i.e., perceived effectiveness of product descriptions (PEPD), perceived interactivity (PI), and perceived effectiveness of feedback systems (PEFS). Collectively, we conceptualize Communication Strategy Facilitators (CSFs) as a consumer's general perception of a buyer's capability of facilitating three core communication strategies in her pre-purchase information acquisition process. In general, we postulate that strong CSFs can potentially contribute to buyer uncertainty reduction, thereby amplify intention to checkout. Our conceptual framework is presented in Figure 1.

(Remark: detailes of hypothesis development and methodlogy are omitted in this extended abstract.)

#### INTENDED IMPLICATIONS

#### **Implications to Theory**

This research contributes to the literature in three ways. First, taking a communication view, this research regards transaction

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makers in an e-market as interactants who strive to reduce uncertainty. This perspective is rarely recognized in e-commerce literature. Our research sheds new light on why these capabilities help attenuate buyers' perception of product uncertainty, which in turn amplify their intention to settle payment during the post cart stage. Second, the current study proposes an integrative understanding of the relative influence of these capabilities on several major types of uncertainty perception from a novel theoretical perspective and provides empirical validations. Third, this research theorizes the relative influence of passive, interactive, and active facilitators on different types of uncertainty and provides empirical evidences.

### **Implications to Practice**

our results reveal an unexpected weak effect of interactive communication on performance uncertainty perception. Thus, the findings suggest directions for the optimal customization of e-market services or design features when only limited resources are available. On the other hand, dyadic communication and effective feedback systems are found critical in alleviating seller uncertainty. It suggests that for the businesses in which seller uncertainty is the main hindrance, such as the auction of used item (Dimoka *et al.* 2012), providing interactive communication channels and effective feedback systems might be most beneficial.

#### Limitations

the cross-sectional design may limit the study's ability to make causal inferences, because the temporal sequence of relationships cannot be established. This also raises the concern with common method variance. Although our diagnostic test results and the differential relationships found help reduce this concern to some extent, longitudinal designs or experimental designs are encouraged for future research.

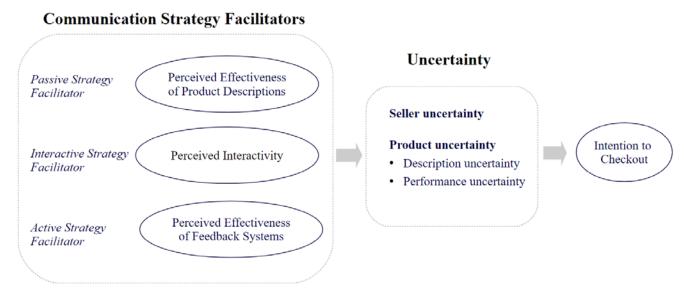


Figure 1: Research Framework: Facilitation of Uncertainty Reduction

## REFERENCES

- [1] BCG. (2016). Americans' Move to Online Shopping Is Plateauing. Boston Consulting Group (BCG).
- [2] Dimoka, A., Hong, Y., & Pavlou, P. A. (2012). On product uncertainty in online markets: Theory and evidence', *MIS Quarterly*, 36(2), 395-A315.
- [3] Egeln, L. S., and Joseph, J. A. (2012). Shopping cart abandonment in online shopping. *Atlantic Marketing Journal*, 1(1), 1.
- [4] eMarketer. (2016). Three-quarters of the world's shopping carts are abandoned Retailers are looking at ways to overcome shopping cart abandonment. *eMarketer*.
- [5] Fenech, T. (2002). Antecedents to Web cart abandonment. *Australian and New Zealand Marketing Academy (ANZMAC) Conference, Melbourne*.
- [6] Fernandes, B. (2012). Abandoning the online shopping cart before finalizing the purchase: Influences form attitudes, subjective norms and internet experience. Universidade Católica Portuguesa.
- [7] Kahneman, D., and Tversky, A. (1979). Prospect Theory: An analysis of decision under risk. *Econometrica: Journal of the Econometric Society*, 47(2), 263-291.
- [8] Koufaris, M. (2002). Applying the Technology acceptance model and flow theory to online consumer behavior. *Information Systems*, 13, 205-223.
- [9] Kukar-Kinney, M., and Close, A. G. (2010). The determinants of consumers' online shopping cart abandonment. *Journal of the Academy of Marketing Science*, 38(2), 240-250.
- [10] Liu, Y. (2003). Developing a scale to measure the interactivity of websites. Journal of Advertising Research, 43(2),

207-216.

- [11] Rajamma, R. K., Paswan, A. K., and Hossain, M. M. (2009). Why do shoppers abandon shopping cart? Perceived waiting time, risk, and transaction inconvenience. *Journal of Product & Brand Management*, 18(3), 188-197.
- [12] Reichheld, F. F., and Schefter, P. (2000). E-Loyalty Your secret weapon on the Web. *Harvard Business Review*, 78(4), 105.
- [13] Teo, H. H., Oh, L. B., Liu, C. H., and Wei, K. K. (2003). An empirical study of the effects of interactivity on Web user attitude. *International Journal of Human-Computer Studies*, 58(3), 281-305.