Consumers’ Mobile Location-Based Advertising Opt-In Intention

Jinhee Han, Mohammad Shahidul Kader, and Wi-Suk Kwon, Auburn University

Introduction

As consumer demands for customization-focused retail services increase, many U.S. retailers are adopting mobile location-based advertisements (MLBA) as a communication tool (Williams, 2019). Retailers send out MLBA to geographically targeted customers by substituting traditional communication tools, such as SMS/MMS, emails, and online/mobile flyers (Zhou, 2013). Combining location-sensing features and message tailoring technologies, retailers can tailor MLBA for individual consumers and provide consumers with services with increased personal, situational, and timely relevance. This innovative marketing tool can even spur seamless channel integration with other mobile services (e.g., online/mobile order pick up, order-online-return-in-store, and scan-and-go, improved in-store experiences, and better customer relationship management) (Andrews et al., 2016). The increased relevance of MLBA enhances consumers’ involvement level and attitude toward the MLBA; however, consumers can become immune to overwhelming mobile messaging from retailers and marketers, eventually ending up opting out of MLBA or ignoring them. A considerable amount of literature has explored the values and motivations toward using mobile advertising; however, little has been known about consumers’ mental trade-off in receiving MLBA. Therefore, this study investigates how consumers’ decisions to opt-in/out are made through the trade-off between perceived benefits and risks and how the levels of these perceived benefits and risks are influenced by the intrinsic attributes (i.e., timeliness, personalization, and localization) of MLBA.

Literature and Hypotheses

Consumers may perceive diverse benefits of receiving MLBA, such as economic benefits (e.g., coupons), on-demand information, and entertaining and socially-connected feelings with communities and service providers (Andrew et al., 2012). Simultaneously, consumers may feel uneasy about MLBA due to financial or security concerns associated with retailers’ potential misuse of their personal information (e.g., location, personal online/mobile account setting, past transactions) or the inconvenience of being interrupted by unsolicited MLBA message notifications (Andrews et al., 2016; Shankar & Balasubramanian, 2009), which all can constitute their perceived risks of receiving MLBA. The use and gratification theory proposes that consumers’ needs motivate their use of a particular media tool (Katz et al., 1973). Since MLBA delivers mobile ad messages that match consumers’ location and personal interests in a timely manner, localization, timeliness, and personalization are key intrinsic attributes of MLBA, which may create values that benefit consumers (Feng et al., 2016). However, these attributes of MLBA also may make consumers feel vulnerable, leading to perceived risks. Therefore, we predict that the more timely (H1), personalized (H2), and location-relevant (H3) consumers perceive MLBA to be, (a) the higher the consumers’ perceived benefits of MLBA and (b) the higher the perceived risks of MLBA.
Furthermore, consumers’ decision to opt-in/out MLBA is likely to be determined by consumers’ mental trade-off between the perceived benefits and risks. For example, when consumers’ perceived benefits of receiving MLBA are stronger than consumers’ perceived risks, consumers’ intention to opt-in MLBA is more likely to increase (Muk, 2007). Therefore, consumers’ benefit perceptions will increase consumers’ MLBA opt-in intention (H4), while risk perceptions will decrease their opt-in intention (H5).

Methods

An online survey was conducted via Amazon Mturk with a national sample of 383 U.S. consumers (19+ years old) who had previous MLBA experiences. The sample consisted of men (48%) and 194 women (50.7%); a majority of them were non-Hispanic White (75.5%), and having had at least some college credit, no degree (70%). Participants’ median age category was 29-38 years. All measurement items were developed by the researchers by culling items from multiple existing measurements of related constructs and adapting their wordings to fit the meanings of this study’s constructs. All measurement items were rated using a 5-point Likert scale.

Results

First, separate confirmatory factor analysis (CFA) was performed for each construct to establish the dimensionality of the scales, which resulted in 1) three factors of intrinsic attributes of MLBA, personalization, timeliness, and localization ($\chi^2 = 68.07, df = 24, p < .05; \text{CFI} = .96, \text{TLI} = .94, \text{RMSEA} = .069$), 2) five factors of perceived benefits of receiving MLBA; relationship, social, entertainment, economic, and informativeness values ($\chi^2 = 431.66, df = 142, p < .05; \text{CFI} = .96, \text{TLI} = .95, \text{RMSEA} = .073$), 3) three factors of perceived risks of receiving MLBA; convenience, financial, and security risks ($\chi^2 = 105.16, df = 32, p < .05; \text{CFI} = .96, \text{TLI} = .95, \text{RMSEA} = .077$), and 4) a single factor of opt-in intention ($\chi^2 = 1.10, df = 1, p = .294; \text{CFI} = 1.0, \text{TLI} = 1.0, \text{RMSEA} = .016$). The convergent and discriminant validity was achieved for the factors from each construct, with AVEs > .50 and AVEs > SMCs. Cronbach’s $\alpha$ of all constructs exceeded the threshold of .70.

To test the hypotheses, structural equation modeling (SEM) was run with the structural paths specified 1) from the three first-order intrinsic attribute factors to each of the two second-order factors of perceived benefit and perceived risk, each of which was indicated by its respective first-order factors retained from the aforementioned separate CFA, as well as 2) from the perceived benefit and perceived risk second-order factors to the opt-in intention factor ($\chi^2 = 1839.52, df = 719, p < .05; \text{CFI} = .90, \text{TLI} = .89, \text{RMSEA} = .064$). Results revealed that the timeliness of MLBA positively influenced perceived benefit ($\gamma = .78, p < .05$), supporting H1a; while negatively influencing perceived risk ($\gamma = -.23, p < .05$), rejecting H1b. The influence of the personalization of MLBA on perceived benefit was significant ($\gamma = .23, p < .05$), supporting H2a; while its influence on perceived risk was not significant ($\gamma = .08, p = .45$), rejecting H2b. The localization of MLBA negatively influenced perceived benefit ($\gamma = -.49, p < .05$), rejecting H3a; while it positively influenced perceived risk ($\gamma = .24, p < .05$), supporting H3b. The results...
further revealed that perceived benefit positively influenced MLBA opt-in intention ($\beta = .89, p < .05$), while perceived risk negatively influenced the intention ($\beta = -.13, p < .05$), supporting both H4 and H5.

**Discussion**

The results reveal an important finding that sending MLBA to consumers just based on *locational relevance* can backfire (i.e., evoke risks while decreasing benefits in consumers’ minds) unless they are *personalized* to the need of the consumers and sent in a *timely* manner. Receiving geographically targeted MLBA of little relevance to their personal needs at an inconvenient time may make consumers feel vulnerable and irritated. This study also reveals the superiority of perceived benefit to perceived risk in influencing consumers’ MLBA opt-in decision in that although the decision is significantly impacted by both the benefit and the risk, a greater weight is given to the benefit to lead to the decision to opt in to receive MLBA. This study addresses the research gap in the benefit-risk trade-off in MLBA opt-in decisions and enlightens the linkages between intrinsic attributes of MLBA and consumers’ benefit and risk perceptions. The findings of this study broaden retailers’ understanding of the effectiveness of various factors of MLBA in driving consumers’ decision making, thus providing insights on how they could maximize the effectiveness of their investment in MLBA.

**References**