

## Individualization Strategies of Location-Based Mobile Message: An Application of Elaboration Likelihood Model

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*Background and Purpose.* Location-based mobile advertising is one of the fastest growing marketing tools, with its projected average annual growth rate of 17.8% (Technavio, 2021). As an efficient method to deliver messages tailored to customers at the right time and at the right locations (Andrew et al., 2016), location-based mobile advertising is reshaping the landscape of the retail industry and tightening channel integrations. However, theoretical applications in research on location-based mobile message (LBMM) individualization strategies have been scant. To address this gap, this study investigates the effects of three levels of LBMM individualization strategies (randomization, personalization, and customization) on consumers' elaboration on, perceptions of, and attitude toward the LBMM and the structural relationships among these variables from a theoretical framework of the elaboration likelihood model (ELM; Petty & Cacioppo, 1986).

*Theoretical Framework.* Depending on the degree of consumers' involvement with a retailer's generation of a LBMM, three LBMM individualization strategies are conceptualized, including 1) *randomized messages* (messages randomly generated based merely on the consumer's location), 2) *personalized messages* (messages tailored by retailer-supplied input, such as the consumer's search history, plus their location), and 3) *customized messages* (i.e., messages tailored by consumers' voluntary input to receive tailored marketing messages, plus their location and other retailer-supplied input). Many previous studies proposed that individuals more highly involved in a task are more likely to engage in a message related to the task because of its personal relevance (Kalyanaraman & Sundar, 2006). Further, consumers' psychological irritation and disturbance are reduced when processing information related to a highly involved task (Edwards et al., 2002).

According to ELM (Petty & Cacioppo, 1986), individuals may process a persuasive message via a central route (through careful issue-relevant thinking; i.e., high elaboration) or a peripheral route (through heuristics; i.e., low elaboration), and an attitude change via the central route is likely to be more strongly held and stable than an attitude change occurring through the peripheral route. Elaboration is more likely to occur when the message is on an issue with which the individual is highly involved because they perceive it to be relevant to them and thus not intrusive. Given this theoretical reasoning, we predict that consumers perceive a LBMM more relevant to them (H1) and less intrusive (H2) as the LBMM individualization level increases from randomization to personalization to customization. Consumers are also more likely to *elaborate* on a LBMM when it is more highly individualized to them (H3) via the mediation of the heightened perceived relevance (H4) and reduced perceived intrusiveness (H5) (Edwards et al., 2002; Lee et al., 2015). It is further expected that (a) the more relevant and (b) the less intrusive a LBMM is perceived to be and thus (c) the more elaboration the consumer engages in processing the LBMM, the more positive their attitude toward the LBMM will be (H6).

*Method.* A between-subjects online experiment was conducted by manipulating LBMM individualization strategies in three levels (randomization vs. personalization vs. customization). A U.S. national sample of 455 smartphone users (229 women and 226 men) at ages of 19 to 34 years participated in the experiment. A product category with a medium level of product involvement, Bluetooth speaker, was selected through a pretest as the product context for the study. Participants were randomly assigned to one of the three individualization conditions. The three LBMM individualization levels were manipulated by verbal scenarios describing situations in which a consumer receives a LBMM about a Bluetooth speaker on their mobile phone during an in-store shopping, where the Bluetooth speaker was depicted as (a) a completely random product (randomization), (b) a product browsed for recently (personalization), or (c) a product the consumer recently put in a mobile shopping cart and opted in to receive a LBMM for (customization). After reviewing their assigned individualization scenario, participants were asked to examine an image of a fictitious LBMM containing a promotional message about a Bluetooth speaker that was on sale. Then, they completed dependent measures (perceived relevance, perceived intrusiveness, elaboration level, and attitudes) and manipulation-check measures (perceived individualization), all adapted from existing scales and rated using a 7-point Likert-type response format, as well as demographic items.

*Results.* Manipulation was successful as participants perceived the highest level of individualization for the customization scenario ( $M = 5.54$ ), followed by personalization ( $M = 4.94$ ) and then randomization ( $M = 3.04$ ,  $p < .001$ ) conditions. Confirmatory factor analysis revealed a good measurement model fit (CFI and TLI = .98; RMSEA = .05) and acceptable measurement properties (e.g., AVEs > .80; Cronbach's  $\alpha > .80$ ). Results from structural equation modeling (CFI = .98, TLI = .97, RMSEA = .05) showed that the higher the LBMM individualization levels, the higher the perceived relevance ( $\gamma = .63$ ,  $p < .001$ ) and the lower the perceived intrusiveness ( $\gamma = -.16$ ,  $p < .001$ ), supporting H1 and H2, respectively. Further, when the mediators were taken out of the model, as the LBMM individualization levels increased, the consumer's elaboration of the message also increased ( $\gamma = .48$ ,  $p < .001$ ), supporting H3. However, this direct effect became non-significant with the two mediators in the model; specifically, the individualization strategy had significant indirect effects (IE) on elaboration through perceived relevance (IE = .50,  $p < .001$ ) and perceived intrusiveness (IE = .03,  $p < .001$ ), supporting H4 and H5, respectively. Finally, consistent with H6a, H6b, and H6c, respectively, attitude toward the LBMM was positively influenced by perceived relevance ( $\beta = .53$ ,  $p < .001$ ) and elaboration ( $\beta = .54$ ,  $p < .001$ ) while it was negatively influenced by perceived intrusiveness ( $\beta = -.13$ ,  $p < .001$ ).

*Discussion and Implications.* This study demonstrates a significant effect of LBMM individualization strategies on consumers' perceptions (i.e., relevance and intrusiveness) of a LBMM. The study findings also suggest the consumer elaboration level and attitude toward a LBMM are significantly affected by the degree of consumer inputs involved in the LBMM generation, confirming many previous studies emphasizing the impact of the perceiver's task involvement on persuasive effects (Celsi & Olson, 1988; Gazley et al., 2015; Petty & Cacioppo, 1986). The study also offers valuable implications for retailers to leverage the efficiency of LBMM strategies based on the level of individualization strategies. Our findings alert marketers should tailor the LBMM deliberately with proper permission to opt-in to

receive LBMMs to reduce consumers' privacy or intrusiveness concerns related to LBMMs. Lastly, the findings of this study can stimulate a stream of research that addresses message individualizations, consumer online data optimization, or service quality associated with interactive marketing tools.

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