Delivering User Context-Sensitive Service in M-Commerce: An Empirical Assessment of the Impact of Urgency on Mobile Service Design for Transactional Apps

Authors : Daniela Stephanie Kuenstle

Abstract : Complex industries such as banking or insurance experience slow growth in mobile sales. While today's mobile applications are sophisticated and enable location based and personalized services, consumers prefer online or even face-to-face services to complete complex transactions. A possible reason for this reluctance is that the provided service within transactional mobile applications (apps) does not adequately correspond to users' needs. Therefore, this paper examines the impact of the user context on mobile service (m-service) in m-commerce. Motivated by the potential which context-sensitive m-services hold for the future, the impact of temporal variations as a dimension of user context, on m-service design is examined. In particular, the research question asks: Does consumer urgency function as a determinant of m-service composition in transactional apps by moderating the relation between m-service type and m-service success? Thus, the aim is to explore the moderating influence of urgency on m-service types, which includes Technology Mediated Service and Technology Generated Service. While mobile applications generally comprise features of both service types, this thesis discusses whether unexpected urgency changes customer preferences for m-service types and how this consequently impacts the overall m-service success, represented by purchase intention, loyalty intention and service quality. An online experiment with a random sample of N=1311 participants was conducted. Participants were divided into four treatment groups varying in m-service types and urgency level. They were exposed to two different urgency scenarios (high/ low) and two different app versions conveying either technology mediated or technology generated service. Subsequently, participants completed a questionnaire to measure the effectiveness of the manipulation as well as the dependent variables. The research model was tested for direct and moderating effects of m-service type and urgency on m-service success. Three two-way analyses of variance confirmed the significance of main effects, but demonstrated no significant moderation of urgency on m-service types. The analysis of the gathered data did not confirm a moderating effect of urgency between m-service type and service success. Yet, the findings propose an additive effects model with the highest purchase and loyalty intention for Technology Generated Service and high urgency, while Technology Mediated Service and low urgency demonstrate the strongest effect for service quality. The results also indicate an antagonistic relation between service quality and purchase intention depending on the level of urgency. Although a confirmation of the significance of this finding is required, it suggests that only service convenience, as one dimension of mobile service quality, delivers conditional value under high urgency. This suggests a curvilinear pattern of service quality in e-commerce. Overall, the paper illustrates the complex interplay of technology, user variables, and service design. With this, it contributes to a finer-grained understanding of the relation between m-service design and situation dependency. Moreover, the importance of delivering situational value with apps depending on user context is emphasized. Finally, the present study raises the demand to continue researching the impact of situational variables on m-service design in order to develop more sophisticated m-services.

Keywords : mobile consumer behavior, mobile service design, mobile service success, self-service technology, situation dependency, user-context sensitivity