Do Point of Sale RFID-Based Information Services Make a Difference?

The increase in RFID implementation in retail allows the development of smart product information applications. However, literature describes only a few evaluations of RFID retail applications with real consumers. The question that arises is, whether such theoretically possible user-centric ubiquitous computing applications meet user needs and, if so, what method is best to investigate this? For our investigation, we developed a mobile phone application prototype based on Near Field Communication (NFC) to obtain product information at the Point of Sale (PoS). Following the ideas of Davis and Venkatesh (2004) and Abowd et al. (2005) with an extended pre-prototype approach for application development and evaluation, we conducted two focus groups (10 consumers, 10 sales assistants). While participants considered the NFC technology innovative and very easy to use ? the need for further information at the PoS was low and varied between product categories. Our approach found that user opinions about paper-based concepts and real prototypes were different from the findings of Davis and Venkatesh (2004). This paper is the first to evaluate a smart information product.
system with an existing prototype and real consumers, as well as sales personnel. The findings contribute to the theory of ubiquitous computing by proposing a modified approach to evaluating user acceptance and to refining information system requirements for RFID-based smart products. The findings also reflect the response of sales personnel to RFID penetration in shops, suggest how mobile services can add user benefits, and help in the selection of what is the most beneficial information to present at the PoS.

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