

Robot-Assisted Article Search in Do-It-Yourself-Stores

A Study on Summative Evaluation and User Acceptance of a Mobile Shopping Assistant

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Abstract

A summative evaluation of a mobile shopping robot for home improvement stores is presented. The robot was evaluated considering effectiveness, efficiency and satisfaction according to DIN EN ISO 9241-11 by means of a usability test. In a field study, shopping with robot assistance was compared to a purchase without a robot (n=94 participants). The usability of the robot was rather high, but had no advantages compared to purchasing without robot assistance. Future intention to use the robot (as acceptance rating according to the Unified Theory of Acceptance and Use of Technology; Venkatesh et al. 2003) was analyzed in a field study with n=188 home store customers. Intention to use the robot was high and was explained to 56% by Attitude toward Using Technology, Performance Expectancy and Effort Expectancy.

Keywords: Evaluation, Usability, Unified Theory of Acceptance and Use of Technology (UTAUT), Service Robots



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