

스마트폰 Hard Key의 위치별 만족도 분석

최영근, 이승훈, 권도훈, 박보영, 유희천

포항공과대학교 산업경영공학과

Analysis of User Satisfaction for Hard Key Locations on Smartphones

Younggeun Choi, Seunghoon Lee, Dohoon Kwon, Boyoung Park, Heecheon You

Department of Industrial and Management Engineering, Pohang University of Science and Technology

ABSTRACT

Objective: The present study evaluated the satisfaction for hard key locations on smartphones with various sizes to find the most satisfactory location. **Background:** Hard key location is important for usability of smartphone since an improperly located hard key can cause awkward grip postures which are uncomfortable and unstable. However, smartphone manufacturers have designed hard keys at different locations for each device and the recommended hard key location considering device size and users' hand size has not been studied. **Method:** A total of seventy participants evaluated locations of hard keys on four smartphone mock-ups with three different hard key locations designed in this study and four commercial smartphone mock-ups. Participants evaluated the satisfaction for each hard key location by 7 point Likert scale while operating the hard keys in two different grip postures suggested. **Results:** The middle location was the most satisfactory among three locations throughout four smartphone mock-ups with different sizes. User satisfaction for hard key location is significantly different by grip posture and hand size. **Conclusion:** The most satisfactory locations for hard keys on smartphones with various sizes were found statistically. **Application:** The hard key locations found in this study would be useful to determine the locations of new smartphone hard keys for the smartphone manufacturers.

Keywords: Smartphone, Usability, Hard key locations

Corresponding author: Heecheon You (hcyou@postech.ac.kr)

Acknowledgements : This research is supported by "The Foundation Assist Project of Future Advanced User Convenience Service" through the Ministry of Trade, Industry and Energy (MOTIE) (R0004840, 2018)