8-10-2023

An Examination of Factors Shaping the Mobile App Users' Security Protection Behaviors

Anitha Chennamaneni
Texas A & M University Central Texas, anitha.chennamaneni@tamuct.edu

Babita Gupta
California State University Monterey Bay, bgupta@csumb.edu

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TREO Talk Paper

Anitha Chennamaneni
Texas A&M University Central Texas
anitha.chennamaneni@tamuct.edu

Babita Gupta
California State University Monterey Bay
bgupta@csumb.edu

Abstract

The number of cyberattacks on mobile devices is on the rise. Hackers are also becoming more adept at exploiting mobile apps because of their widespread use both for business and personal purposes. Kaspersky Security Network alone reported blocking 5,623,670 mobile malware, adware, and riskware attacks in Q3 2022. The purpose of this study is to gain insights into what factors shape mobile app users' security protection behaviors. We developed a research model based on the protection motivation theory, the theory of planned behavior, and personality traits literature. Data was collected from 331 mobile app users using survey methodology and analyzed using PLS structural modeling. Most of the measures for items were adapted from prior literature. Gender distribution of respondents was about 37% females and 62% males and age distribution with 35% in 18-30 years, 41% in 31-40 years, 12% in 41-50 years, with 11% respondents in the 51 years or above age group. 1% of respondents declined to state their gender or age. Our preliminary results show the strong effect of personality traits, attitude, subjective norms, perceived behavioral control, perceived severity, and self-efficacy on mobile app users' security protection behaviors. Additionally, the trust had a significant influence on attitude, and personality traits such as agreeableness, extroversion, and neuroticism moderated the effect of attitude on security protection behaviors. The predictors explained about 34.4% of the variance in the mobile app users' actual security protection behaviors. Implications to researchers and practitioners in relation to these findings as well as new directions for research are discussed.