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An Empirical Examination of the Economics of Mobile Application Security

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Abstract

The growth of mobile devices coupled with the advances in mobile technologies has resulted in the development and widespread use of a variety of mobile applications (apps). Mobile apps have been developed for social networking, banking, receiving daily news, maintaining fitness, and for job-related tasks. The security of the apps is an important concern. However, in some cases, the app developers may be less interested to invest in the security of the apps, if users are unwilling to pay for the added security. In this paper, we empirically examine whether consumers are less willing to pay for security features than for usability features. In addition, we examine whether a third-party certification of the security features makes customers more willing to pay for security. Furthermore, we investigate the impact of risk perceptions on the willingness of paying for security. To explore these issues, we conduct a scenario-based experiment of mobile app users. Results from our analyses show that, consumers are indeed less likely to pay for security features than usability features. However, the likelihood of paying for security can be significantly increased by third-party certification of the features. Based on our analysis, we offer insights to producers of mobile apps to monetize the enhanced security features of their apps.

Keywords: Application security, mobile apps, willingness to pay, information asymmetry, risk perceptions