The Effect of the Recommendation System in the Mobile App Market

Emergent Research Forum Paper

Charles Zhechao Liu  
Department of Information Systems and Cyber Security, The University of Texas at San Antonio, USA  
charles.liu@utsa.edu

Mohsen M. Jozani  
Department of Information Systems and Cyber Security, The University of Texas at San Antonio, USA  
mohsen.mohammadijozani@utsa.edu

Kim-Kwang Raymond Choo  
Department of Information Systems and Cyber Security, The University of Texas at San Antonio, USA  
raymond.choo@fulbrightmail.org

Abstract

Product recommendation systems have been widely adopted in e-commerce to improve product visibility and promote sales. This study examines the effect of recommendation system in the increasingly popular mobile app market, which is uniquely characterized with its multitude of product choices and the prevailing use of the freemium model. We constructed a panel dataset using a wide range of daily app data collected from the world’s leading Google Play app store. This rich dataset allows us to examine how the competition between the focal app and its recommendations affects their relative adoptions, and how the heterogeneity of the recommendations influences market inequality. By introducing new research angles on competition within recommendation system and market inequality, our study will help platform operators and developers better understand the dynamics in the mobile app market and offer practical guidance on how to enhance the design of the mobile app recommendation system.

Keywords

Recommendation system, market inequality, mobile app, Google Play.