The Value of Quality in Mobile App Markets

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Abstract

Mobile application developers have capabilities to alter the price and quality of their Apps already introduced in the market based on dynamic consumer demand. This research investigates the role of App updates in stimulating consumer demand in the presence of strong ranking effects and appraises the value of quality in the hyper-competitive mobile App market. A panel vector autoregresive (PVAR) model is introduced to evaluate the interdependencies among rankings, price discounts, and quality updates made from 1,259 productivity Apps over 215 days in the Apple App Store. We consider two distinctive consumer needs for (1) quality improvement and for (2) promotional pricing. The findings empirically substantiate predominant ranking effects in the market, and suggest developers make strategic update decisions based upon consumer needs. Specifically, a quality-based update has a positive impact on App sales when consumers look for better quality Apps and a price discount strategy is important when there is growing App demand along with increased device sales. We further find that competing effects between of price and quality in the market, where low price is predominant (84.2% of $ 0.99 Apps) and the quality of App is not easily assessable. While a quality-based update has a delayed and long-term impact on sales, a reduction in price has an immediate and short-term impact. This result establishes a positive relationship between quality improvement and App success in the long run. Finally, we propose a set of strategic App positioning approaches for free Apps and utilitarian Apps. The main research findings have contributions to extant literature in theorizing the value of product quality in information goods markets and have managerial implications for App developers and marker designers by recommending strategic promotion and update strategies that are effective in highly competitive markets.

Keywords: Mobile applications, quality update, price discount, panel vector autoregressive model