First- or Second-Mover Advantage? The Case of IT-Enabled Platform Market

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Abstract

Information technology-enabled platforms are playing increasingly important roles in the global economy. While some successful platforms entered their respective markets as pioneers, others were able to achieve market dominance despite starting as followers. This study investigates the conditions under which first-mover advantage (FMA) or second-mover advantage (SMA) occurs in a platform market, and derives their equilibrium order of market entries and optimal market entry timing. The first three determinants of FMA and SMA we identify are (1) quality improvement rate of the second mover, (2) length of demand window, and (3) length of market growth phase of demand window. When the two companies’ order of market entries is predetermined, the second mover having a higher initial platform quality than the first mover guarantees SMA, whereas the first mover having a higher initial platform quality than the second mover does not ensure FMA. In the latter case, the three determinants are needed to determine FMA and SMA. When the two companies’ order of market entries is endogenous and any of the three determinants is sufficiently small, preemptive entry, in which both companies prefer to move early, is the equilibrium; otherwise, sequential entry, in which one company prefers to move early and the other prefers to move late, becomes the equilibrium in most cases. We also find that strong (same-side) network effects can weaken SMA and increase the possibility that both companies prefer early market entry, whereas strong cross-side network effects may strengthen SMA and increase the possibility that both companies prefer late market entry.

Keywords: Platform economy, first-mover advantage, second-mover advantage, market entry timing, duopoly