Compatibility and the Product Life Cycle in Two-Sided Markets

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Abstract

We consider a case in which two competing suppliers of platform hardware devices and content each chooses whether to make its content compatible with the other's hardware device. The outcome depends upon whether the firms' major source of profit lies in the sale of hardware devices or in royalties from the sale of content. If the hardware is the main source of profit then incompatibility with the rival's hardware is a dominant strategy. If royalties from the sale of content are the main source of profit then compatibility is the dominant strategy. Which of these situations attains is likely to change over the product life cycle. When the platform is new, few consumers own the hardware devices and so the sale of them is the major profit center. At a mature state of the platform life cycle, many customers already own the hardware device and royalties from the sale of content become the major profit center. Competing firms with a large difference of market shares may attain an asymmetric equilibrium in which the large firm makes its content incompatible with the rival's hardware devices while the small rival does the opposite.