Modular Products and Proprietary Interface

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Abstract

When products are complex, it might be more efficient to allow for gradual adoption of complexity through consumer-learning. In such scenarios modularity might actually increase profits and dispel compatibility between competing brands. A base module with a multiplicity of functionality enhancement that surface through experience and usage, provides impetus for further innovation on modules promising continued revenue for the OEM of the base module. If there are two firms which so visualize the market, then the competition would be in marketing the base module; there will be no incentive to modularize via standard interface. We study a two period model of duopoly between rivals of comparable modular products and show that both have incentive to maintain proprietary interface for their modules. This model explains the existence of proprietary interface in the SLR camera industry dominated by Nikon and Cannon.