

**MSQ06**

## **Sequential Product Launches with Post-Sale Updates**

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### **Abstract**

As technology evolves, sellers often release sequential product versions with improved performance. In addition to new releases, sellers increasingly use post-sale software updates to extend product longevity. We study the strategy of augmenting paid product releases with free software updates, considering stochastic technology evolution and strategic consumer behavior. By contrasting this approach against two benchmarks without free updates, we show that offering free updates can significantly boost profits and optimally extend product introduction cycles. We analyze the sensitivity of release timing and profits to drivers including cost, technology uncertainty, consumer heterogeneity, and time-discount rates. Our results indicate that while free updates appear to benefit consumers, they also serve as an effective mechanism for increasing seller profits.

### **Conference Track**

Management Science and Quantitative Methods