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## **An Empirical Investigation of Consumer Purchases and Inter-temporal Pricing of Retailers' Extended Service Contracts**

Abstract:

Despite the fact that the sale of Extended Service Contracts (ESCs) has become a significant profit engine for electronics retailers, little existing research examines consumer purchase behavior and evaluates the current ESC pricing strategy, which is set to decrease with the fast declining product prices. We propose a dynamic structural model in an optimal stopping framework to examine the consumers' intertemporal pattern of product adoption and ESC purchases across product shelf lives. Recognizing the fact that consumers strategically delay their product adoption, our research focuses on how fast declining product prices affect consumer purchase propensity of ESCs and whether the decreasing ESC prices help the electronics retailers to sell more ESCs. Applying the model to a unique panel data set pertaining to consumer electronics products, our results show that consumers are more likely to purchase ESCs during the early stages of the product's shelf life because of the higher risk associated with replacement costs and uncertainty. Quickly declining product prices significantly decrease consumers' propensity of purchasing ESCs. The current decreasing trend of ESCs further destroys ESC value by encouraging consumers to delay product adoptions. Our simulation results show that an increasing ESC price trend helps encourage consumers to adopt the product earlier, which increases their propensities to purchase ESCs, because it is more aligned with consumers' strategic behavior.