

Resistance to Artificial Intelligence and Price Discrimination

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The advancements in intelligent technologies are changing the way that consumers are searching and shopping for products. An emerging trend is the intelligent home-shopping devices such as Amazon's Alexa which allow consumers to search and order products using voice commands. We study the impact of such artificial intelligence (AI) enabled devices on a brand's distribution channel strategy and its price discrimination across these channels. We first document via a set of experiments that consumers who have established shopping preferences are less-inclined to shop through AI-enabled devices as they find it inefficient relative to their existing shopping heuristics. Consumers who lack established preferences, on the other hand, show an interest in using such devices as they see the upside as discovery of products through recommendations. The hesitation of the former group to adopt AI-enabled shopping devices makes it efficient for a brand operating in a competitive environment to price discriminate across distribution channels. In the second part of the paper, we build an analytical model and derive the equilibrium distribution and pricing strategies for competing brands conditional on the heterogeneity of consumers with respect to their willingness to adopt AI-enabled devices.

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