

On the Diffusion of Electronic Commerce*

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Abstract

This paper analyzes retailers' adoption of e-commerce in a technology adoption race framework. An Internet-based firm with no traditional market presence competes with an established traditional firm to adopt the e-commerce technology and sell to a growing number of consumers with on-line shopping capability. The analysis highlights how consumer loyalty, relative per consumer profitability of the traditional versus virtual markets, and expansion in market size made possible by the Internet affect firms' adoption decisions and post-adoption evolution of prices. The model's predictions are used to discuss empirical evidence on adoption patterns across different product categories and firm types.

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