

Adaptation or Death? Bookstore Chains Meet Online Competition

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E-commerce is the fastest growing subsector within retail trade, yet the exact nature of competition between physical stores and the online channel is thinly studied empirically. Focusing on the differential effect of online competition on brick-and-mortar bookstores, I find that online competition has a larger negative effect on large chain stores than on single-unit stores. Furthermore, bookstores that were the most insulated from online competition are precisely the stores that sell a wide array of products outside of books, such as food, gift card, and clothing. In response to surging online competition, stores have expanded their non-book product offerings over time.

Tracing out the impact of e-commerce, I exploit geographic and over time variation in the level of online activities. Measures of e-commerce levels from the commercially available Forrester Research Technographics Survey are combined with a Census data panel spanning 1987 to 2012. Detailed microdata from the Census of Retail Trade and the Longitudinal Business Dataset provides store-level performance measures as well as store characteristics including size of the operating firm. Furthermore, the product lines trailer to the Census of Retail Trade is uniquely suited for examining how e-commerce prompted bookstores to change the products they carry.

I develop a dynamic oligopoly model of the bookstore industry to quantify the effect of online retail on equilibrium market structure. The model incorporates heterogeneity across chain size in the cost of expanding non-book product variety as well as entry cost for entrants and the fixed cost of continuation for incumbent stores. The model suggests that the rise of online competition has disproportionately reduced producer surplus for the large chains despite their increasing non-book presence the most over time. As online competition has initiated major changes within retail trade, this paper contributes to evaluating e-commerce's overall welfare impact.