THE EFFECT OF EDITORIAL DISCRETION BOOK PROMOTION ON SALES AT AMAZON.COM

A thesis presented by

Benjamin Edelman

To the Faculty of Arts and Sciences

In partial fulfillment of the undergraduate honors degree requirements

For the degree of

Bachelors of Arts
In the Department of Economics

Harvard University
Cambridge, Massachusetts

March 14, 2002
**THE EFFECT OF EDITORIAL DISCRETION BOOK PROMOTION ON SALES AT AMAZON.COM**

**Table of Contents**

1. Introduction and Motivation ................................................................. 3
2. Literature Review .............................................................................. 4
3. The Dataset ....................................................................................... 7
   3.1. Summary statistics ................................................................. 10
   3.2. Additions to editorial discretion pages ...................................... 10
   3.3. Duration of promotion on editorial discretion pages ................. 11
   3.4. Frequency of promotion on editorial discretion pages ............. 13
   3.5. Ranks of books promoted ....................................................... 15
   3.6. Changes in the sample over time ............................................. 16
   3.7. Time effects in additions to editorial discretion pages .......... 17
   3.8. New releases promoted on editorial discretion pages .............. 19
   3.9. Exogenous variation in sales ranks ........................................... 20
   3.10. Comparison of Amazon and Barnes & Noble sales ranks ....... 21
4. Model and Analysis ........................................................................... 22
   4.1. Existence of effect of addition to editorial discretion pages .... 24
   4.2. Magnitude of effect of addition to editorial discretion pages ... 27
   4.3. Extensions via indicator variables ........................................... 33
   4.4. Effect of editorial discretion page size ..................................... 37
   4.5. Page-specific effects ............................................................... 40
   4.6. Effect of availability ............................................................... 43
   4.7. Decay over time of benefit of placement ................................. 46
   4.8. A continuous-time model for decay over time of benefit of placement ...... 52
   4.9. Price competition between Amazon and Barnes & Noble ....... 58
   4.11. Efficient payments by publishers to Amazon for promotion ...... 72
5. Discussion and Extensions ................................................................. 75
References ............................................................................................. 77
1. Introduction and Motivation

Leading Internet bookseller Amazon.com continually promotes selected books on featured areas of its web site. In particular, Amazon maintains thirty-four editorial discretion pages as well as a variety of additional feature areas, each listing books specially selected by Amazon’s staff for likely appeal to Amazon’s customers.\(^1\) Selecting specific books for these pages requires recurring payments to Amazon’s editorial staff; even as Amazon’s forward-looking business plan might cause the company to retain these staff even if their present cost exceeds their present marginal contribution to current profits, with a new focus on profitability both within Amazon and among its investors,\(^2\) quantifying the benefit of this expense takes on increased interest.

A new dataset collected by the author allows estimation of the effect on book sales of promotional listing on Amazon’s editorial discretion pages. Following Goolsbee and Chevalier (2001), sales quantities are inferred from sales rank data freely available on Amazon’s web site, and an automated system tracks which books are promoted when, where, and how often. The results indicate that promotion of books on editorial discretion pages within Amazon’s web site yields increases in sales, and more frequent promotion of a book is associated with larger increases in sales. Increases in sales are greatest for newly-released hardcover books; increases are larger for childrens’ books, books in stock, and books more favorably priced at Amazon than at its foremost competitor, Barnes & Noble. Increases in sales are larger during the period between Thanksgiving and Christmas than before or after the holiday season, and promotion has a

---

\(^1\) At any instant, these category pages are the same for all visitors to Amazon’s site. Separately, Amazon also provides customized individual recommendation pages – which suggest books likely to be of interest based on other books viewed or purchased to date. Discussion and analysis throughout this paper considers only the fixed category pages, not the customized recommendation pages.

larger effect when editorial discretion pages feature only a few books than when they feature many. Finally, the average short-run effect of promotion on one of Amazon’s editorial discretion pages is found to be roughly one third as large as the effect of an appearance in the New York Times Book Review, and the annual sum of Amazon’s editorial discretion promotional activities shows a total short-run impact on sales roughly three fifths as large as the totality of annual Times book reviews.