Information Accessed or Information Available? The Impact on Consumer Preferences Inferred at a Durable Product E-commerce Website

Imran S. Currim \textsuperscript{a,1} & Ofer Mintz \textsuperscript{b,*,1} & S. Siddarth \textsuperscript{c,1}

\textsuperscript{a} Paul Merage School of Business, University of California, Irvine, CA 92697, USA
\textsuperscript{b} E. J. Ourso College of Business, Louisiana State University, Baton Rouge, LA 70803, USA
\textsuperscript{c} Marshall School of Business, University of Southern California, Los Angeles, CA 90089, USA

Available online 10 February 2015

Abstract

Most previous choice modeling research infers preferences by assuming that consumers consider all the information available at the point-of-purchase. Because e-commerce sites increasingly incorporate tracking technologies that can monitor consumer behavior on their site, our research studies how incorporating the information accessed by consumers into a choice model impacts model performance and inferred preferences. We use data from an electronic goods manufacturer that monitored the attribute information accessed by 582 shoppers while they made Customize and Buy decisions at the firm’s website. We find that incorporating the information \textit{accessed} by consumers into the choice model provides more valid estimates of attribute preferences and better fitting choice models than models based on information \textit{available}. Because firms can easily obtain this type of information as a by-product of their online operations, we propose that managers who monitor information acquisition and apply the information accessed model will have a useful methodology to gain a better understanding of consumer preferences.

Keywords: Multi-attribute models; Consumer choice; Revealed preferences; Electronic commerce

Introduction

Imagine that the manager of the Kindle product line at Amazon wants to gain a better understanding of customer preferences with a view of making better product design, pricing, advertising, and targeting decisions. She is aware that there are hundreds of shoppers from all over the world at the Amazon website at any point of time considering various Kindle configurations presented in the form of a comparison chart with information on a variety of attributes such as price, connectivity, content, display, and battery life, as shown in Fig. 1. She has the ability to follow the clickstream of potential shoppers up to the point that they make a purchase decision, and wants to use the observed choices to obtain insights about consumer preferences for different attributes and alternatives.

An obvious way of achieving this objective is via a choice model that incorporates all the attribute information available in the comparison chart at the point-of-purchase as is common in the choice modeling literature. However, extensive laboratory research has shown that consumers typically do not access all information at the point-of-purchase due to search costs, information overload, prior knowledge, or heuristic-based shopping. Therefore, with 7 different Kindle configurations and 11 different attributes, she expects that shoppers may not pay attention to all the available attribute data for all alternatives and wonders whether and how much the choice model’s performance and diagnostics would improve if it incorporated the specific cells that a shopper actually looked at.
### Fig. 1. Comparison chart.

<table>
<thead>
<tr>
<th>Model</th>
<th>Connectivity</th>
<th>Content</th>
<th>Web</th>
<th>Display</th>
<th>Battery Life, Wireless Off</th>
<th>Storage</th>
<th>Dimensions</th>
<th>Weight</th>
<th>Interface</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindle</td>
<td>Wi-Fi</td>
<td>Millions of books, newspapers, magazines,</td>
<td>Experimental browser</td>
<td>6&quot; E Ink Pearl</td>
<td>1 month</td>
<td>2GB on device for 1,400 books</td>
<td>6.5&quot; x 4.5&quot; x 0.34&quot;</td>
<td>5.98 ounces</td>
<td>5-way controller</td>
</tr>
<tr>
<td>Kindle Touch</td>
<td>Wi-Fi</td>
<td>Millions of books, newspapers, magazines,</td>
<td>Experimental browser</td>
<td>6&quot; E Ink Pearl</td>
<td>2 months</td>
<td>4GB on device for 3,000 books</td>
<td>6.8&quot; x 4.7&quot; x 0.40&quot;</td>
<td>7.5 ounces</td>
<td>multi-touch</td>
</tr>
<tr>
<td>Kindle Touch 3G</td>
<td>Free 3G + Wi-Fi</td>
<td>Millions of books, newspapers, magazines,</td>
<td>Experimental browser</td>
<td>6&quot; E Ink Pearl</td>
<td>2 months</td>
<td>4GB on device for 3,500 books</td>
<td>7.5&quot; x 4.8&quot; x 0.34&quot;</td>
<td>8.5 ounces</td>
<td>keyboard</td>
</tr>
<tr>
<td>Kindle Keyboard</td>
<td>Wi-Fi</td>
<td>Millions of books, newspapers, magazines,</td>
<td>Experimental browser</td>
<td>9.7&quot; E Ink Pearl</td>
<td>3 weeks</td>
<td>4GB on device for 3,500 books</td>
<td>10.4&quot; x 7.2&quot; x 0.38&quot;</td>
<td>18.9 ounces</td>
<td>keyboard</td>
</tr>
<tr>
<td>Kindle DX</td>
<td>Free 3G + Wi-Fi</td>
<td>Millions of books, newspapers, magazines,</td>
<td>Experimental browser</td>
<td>9.7&quot; E Ink Pearl</td>
<td>8 hours continuous reading or 7.5 hours video playback</td>
<td>8GB on device for 80 apps plus either 10 movies or 800 songs or 8,000 books</td>
<td>7.5&quot; x 4.7&quot; x 0.45&quot;</td>
<td>14.6 ounces</td>
<td>multi-touch</td>
</tr>
<tr>
<td>Kindle Fire</td>
<td>Free 3G</td>
<td>20 million movies, TV shows, apps, books,</td>
<td>Amazon Silk cloud-accelerated browser</td>
<td>7&quot; Vibrant Color IPS</td>
<td>8 hours continuous reading or 7.5 hours video playback</td>
<td>Plus free cloud storage for all Amazon content</td>
<td>8GB on device for 80 apps plus either 10 movies or 800 songs or 8,000 books</td>
<td>14.6 ounces</td>
<td>multi-touch</td>
</tr>
</tbody>
</table>

- **Connectivity:** Available options include Wi-Fi and 3G.
- **Content:** Includes millions of books, newspapers, magazines, audiobooks, and docs.
- **Web:** Experimental browser.
- **Display:** Screen sizes range from 6" to 7.5".
- **Battery Life, Wireless Off:** Battery life varies from 1 month to 8 hours continuous reading.
- **Storage:** Storage capacities range from 2GB to 8GB.
- **Dimensions:** Dimensions range from 6.5" x 4.5" to 10.4" x 7.2".
- **Weight:** Weights range from 5.98 ounces to 18.9 ounces.
- **Interface:** Options include 5-way controller, multi-touch, and keyboard.
دریافت فوری متن کامل مقاله

امکان دانلود نسخه تمام متن مقالات انگلیسی
امکان دانلود نسخه ترجمه شده مقالات
پذیرش سفارش ترجمه تخصصی
امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
امکان دانلود رایگان ۲ صفحه اول هر مقاله
امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
دانلود فوری مقاله پس از پرداخت آنلاین
پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات