

# Chapter 6

## Information Search Patterns in E-Commerce Product Comparison Services

**Fiona Fui-Hoon Nah**

*University of Nebraska-Lincoln, USA*

**Weiyin Hong**

*University of Nevada, Las Vegas, USA*

**Liqiang Chen**

*University of Nebraska-Lincoln, USA*

**Hong-Hee Lee**

*Dankook University, South Korea*

### ABSTRACT

*To facilitate product selection and purchase decisions on e-commerce Web sites, the presentation of product information is very important. In this research, the authors study how disposition styles influence users' search patterns in product comparison services of e-commerce Web sites. The results show that people use relatively more feature paths and less product paths in vertical disposition style than horizontal disposition style. The findings also indicate that there are relatively more feature paths and less product paths in the first half than second half of the information search paths. This is consistent with Gensch's two-stage choice model which suggests that people use attribute processing to derive a consideration set before they apply alternative processing to arrive at a final choice in product comparison services.*

### INTRODUCTION

Electronic commerce continues to capture market share from brick-and-mortar stores, with US online retailing reaching \$175 billion in 2007

and projected to grow to \$335 billion by 2012 (Mulpuru, Johnson, McGowan, & Wright, 2008). One of the values of e-commerce is derived from product comparison services (Keeney, 1999; Wan, Menon, & Ramaprasad, 2007) where customers can compare a wide variety of alternative products at their convenience, such as in the comfort of

DOI: 10.4018/978-1-61350-471-0.ch006

their homes. The design of product comparison services in e-commerce Web sites can influence online traffic and sales, as well as the quality of consumers' online purchase decisions (Cai & Xu, 2008; Diehl, 2005; Lohse & Spiller, 1998; Pu, Chen, & Kumar, 2008). E-commerce Web sites that facilitate customers' search for products and the information they need can increase online sales and promote return visits (Nah, Siau, Tian, & Ling, 2002; Tarafdar & Zhang, 2007, 2008; Tarasewich, Pomplun, Fillion, & Broberg, 2005). Hence, the design of product comparison services on e-commerce Web sites is important for success in e-commerce.

Product comparison services in e-commerce Web sites are usually presented in one of two disposition styles: vertical disposition and horizontal disposition. Vertical disposition displays products by columns and features/attributes by rows (see Figure 1). Horizontal disposition displays products by rows and features/attributes by columns (see Figure 2). For example, vertical disposition style is used for product comparison at Dell.com, and horizontal disposition style is used to display different flight options at Travelocity.com.

Research has shown that information presentation format can influence consumers' information acquisition and processing strategies (Bettman & Kakkar, 1977; Biehal & Chakravarti, 1982;

Figure 1. Vertical disposition style in product comparison




	Product 1	Product 2	...	Product N
Image			...	
Feature 1 (Ex. Name)	DVD Player 1	DVD Player 2	...	DVD Player N
Feature 2 (Ex. Size)	8.5 inches	7 inches	...	8 inches
...		...	...	...
Feature M (Ex. Weight)	1.3 pound	1.1 pound	...	1.1 pound

Diagram illustrating the vertical disposition style. A vertical arrow labeled "Product Path" points down from the Image row to the Feature M row. A horizontal arrow labeled "Feature Path" points right from the Feature 2 row to the Feature M row.

Figure 2. Horizontal disposition style in product comparison




	Image	Feature 1 (Ex. Name)	Feature 2 (Ex. Size)	...	Feature M (Ex. Weight)
Product 1		DVD Player 1	8.5 inches	...	1.3 pound
Product 2		DVD Player 2	7 inches	...	1.1 pound
...	...	...	...	...	...
Product N		DVD Player N	8 inches	...	1.1 pound

Diagram illustrating the horizontal disposition style. A vertical arrow labeled "Feature Path" points down from the Feature 2 column to the Feature M column. A horizontal arrow labeled "Product Path" points right from the Feature 2 column to the Feature M column.

13 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/information-search-patterns-commerce-product/63665](http://www.igi-global.com/chapter/information-search-patterns-commerce-product/63665)

## Related Content

---

### Knowledge Mining

Mahesh S. Raisinghani (2005). *Encyclopedia of Database Technologies and Applications* (pp. 330-335).  
[www.irma-international.org/chapter/knowledge-mining/11168](http://www.irma-international.org/chapter/knowledge-mining/11168)

### Cover Stories for Key Attributes—Expanded Database Access Control

Nenad Jukic, Svetlozar Nestorov, Susan V. Vrbskyand Allen Parrish (2007). *Contemporary Issues in Database Design and Information Systems Development* (pp. 287-319).  
[www.irma-international.org/chapter/cover-stories-key-attributes-expanded/7028](http://www.irma-international.org/chapter/cover-stories-key-attributes-expanded/7028)

### Database Pointers in Navigational and Object–Oriented Database Management Systems: A Comparison

Mark Gillenson, Raymond D. Frostand Michael G. Kilpatrick (1995). *Journal of Database Management* (pp. 14-23).  
[www.irma-international.org/article/database-pointers-navigational-object-oriented/51155](http://www.irma-international.org/article/database-pointers-navigational-object-oriented/51155)

### Fabric Database and Fuzzy Logic Models for Evaluating Fabric Performance

Yan Chen, Graham H. Rongand Jianhua Chen (2008). *Handbook of Research on Fuzzy Information Processing in Databases* (pp. 538-562).  
[www.irma-international.org/chapter/fabric-database-fuzzy-logic-models/20367](http://www.irma-international.org/chapter/fabric-database-fuzzy-logic-models/20367)

### Learn From the Rumors: International Comparison of COVID-19 Online Rumors Between China and the United Kingdom

Fei Liuand Meiyun Zuo (2021). *Journal of Database Management* (pp. 46-68).  
[www.irma-international.org/article/learn-from-the-rumors/282444](http://www.irma-international.org/article/learn-from-the-rumors/282444)