Usability Engineering and Research on Shopping Portals

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INTRODUCTION

A business-to-consumer (B2C) electronic marketplace (e-marketplace) portal helps online shoppers in searching for desired products and services, customizing a user’s shopping experience, and identifying reputable merchants and service providers. These shopping portals provide the ability for a shopper to specify personal preferences, compare prices from multiple vendors, obtain merchant ratings and feedback from other customers, read reviews of products, find featured products and promotion, and create his or her own wish list in an online profile, among others. From an economics perspective, these portals reduce a buyer’s search cost (Bailey & Bakos, 1997). Web sites falling into this category include Yahoo! Shopping, bizrate.com, shopzilla.com, and nextag.com, among others.

Interest in e-marketplaces has significantly increased due to the structural changes in online business brought about by these markets (Ratnasingam, Gefen, & Pavlou, 2005). This article reviews current literature and explores avenues of future research, so as to provide both marketing practitioners and system designers an understanding of the factors contributing to the success of a shopping portal from multiple aspects of usability engineering in e-commerce.

USABILITY ENGINEERING

Unlike direct retailing sites, shopping portals are more of a utility, where people use it as a tool to find the stores from which they will purchase products. For example, product categorization is more complex than most individual e-martners. Portal sites are also more informational in providing featured products and other advertising. Thus, a portal can be viewed as both a technological tool and a consumer information center in its usability. The following sections present a review of related research applicable to evaluating the usability of a shopping portal. Some of these models have been applied to portal or quasi-portal sites in empirical studies, while others should be adopted in future research of e-marketplace portals.

Human Computer Interaction (HCI) and Web Usability

HCI examines the usability of a user interface design from the perspectives of efficiency, effectiveness, and user satisfaction. In the Web context, usability measures how easily a user can learn to operate, provide inputs, and interpret outputs of a system (IEEE, 1990). Nielsen (2003) provides a number of attributes of usability that could be instrumental in conducting usability studies. They include learnability (how easy it is to accomplish basic tasks on a user’s first visit), efficiency (how quickly a user can perform a task once learned), memorability (how quickly a user re-establishes proficiency after a period of time), errors (how many errors occurred), and satisfaction. Related research in this area includes a ServQual instrument (Parasuraman, Zeithaml, & Berry, 1988) and a WebQual framework (Barnes & Vidgen, 2001), both of which have been utilized in measuring usability and effectiveness of Web-based interfaces.