

Chapter 5.5

How Well Do E-Commerce Web Sites Support Compensatory and Non-Compensatory Decision Strategies? An Exploratory Study

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ABSTRACT

The burgeoning growth of online retailing is forcing businesses to provide better support for consumer decision making on e-commerce Web sites. Consequently, researchers in information systems and marketing have been focusing on investigating the effectiveness of Web-based decision support systems (WebDSS) in providing accurate and satisfying choices for customers. We consider WebDSS implementation based on compensatory, non-compensatory decision strategies and synthesize the existing literature.

The results of synthesis show that compensatory WebDSS perform better than non-compensatory WebDSS in terms of decision quality, satisfaction, effort, and confidence. We then investigate the level of Web site support provided for consumers' execution of compensatory and non-compensatory strategies. We examined 375 U.S.-based company Web sites and found that though moderate levels of support exists for consumers to implement non-compensatory choice strategies, virtually no support exists for executing multi-attribute-based compensatory choice strategies.

INTRODUCTION

The advent of the World Wide Web and search engines caused a revolution in the way people search for information. The Internet is now used by 73% of all American adults as of 2006 (Pew Internet and American Life, 2006). In addition, the rapid growth of e-commerce has resulted in digital marketplaces offering a wide variety of product alternatives, elaborate product related information, and great convenience for visitors. Consequently, ever-greater numbers of individuals are interacting with online environments to search for product related information and to buy products and services (Xiao & Benbasat, 2007). In fact, searching for product or service related information was the second most popular activity on the Internet in 2003 after e-mail or instant messaging (U.S. Department of Commerce, 2004). Concurrently, online sales are expected to reach \$331 billion by 2010, according to a report by Forrester research.¹ The Web retailers with their retailer innovations and Web site improvements are expected to account for 13% of total retail sales in 2010, up from 7% in 2004. These statistics suggest that e-commerce is growing at a rapid pace, and individuals are increasingly using digital market places at every phase of their decision making process from search to choice.

Nonetheless, access to abundant information on the Web can be a blessing and a curse at the same time (Haubl & Murray, 2003). It is a blessing in that consumers now have access to a huge amount of information from several sources, and a curse because human beings are limited in their information processing capabilities (Simon, 1955). Therefore, many Web retailers are incorporating WebDSS to assist consumers with their decision-making process (Grenci & Todd, 2002). WebDSS capture individual user preferences for products either explicitly or implicitly and provide recommendations based on such preferences (Xiao & Benbasat, 2007). WebDSS have the potential to ease consumers' information overload and to re-

duce search complexity in addition to improving their decision quality (Haubl & Trifts, 2000).

The research in the area of consumer decision support on e-commerce Web sites is rapidly becoming interdisciplinary. Researchers from computer science, library sciences, social psychology, marketing, management, and information systems are beginning to make important contributions to this area of research. Consequently, the decision technology implemented on e-commerce Web sites is known with different names although they all refer to the same tool to be used by the consumers. Examples include intelligent agents, electronic product recommendation agents, recommendation systems, and WebDSS. In their extensive review of electronic recommendation agents, Xiao and Benbasat (2007) categorized recommendation agents (RAs) into three types. The first type of RAs includes content-filtering, collaborative-filtering, and hybrid agents. The second type includes feature-based and need-based RAs. Finally, the third type of RAs includes compensatory and non-compensatory-based systems.

The present article considers only compensatory and non-compensatory WebDSS and investigates the level of consumer support provided on commercial Web sites to execute compensatory or non-compensatory strategies. We present a synthesis of literature concerning the effectiveness of implementing compensatory versus non-compensatory DSS, and then examine whether or not such findings have made their way into the design of commercial Web sites. We believe that understanding the reality of the extent to which e-commerce Web sites support compensatory and non-compensatory strategies is important for several reasons. From a practical standpoint, if we find that relatively a smaller fraction of Web sites provide compensatory-based support despite a well supported finding that such support is normatively better, then that would highlight an opportunity for the Web retailers to increase the support levels to their customers. From a theoretical standpoint, such finding would raise

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