An Exploratory Study of Operant Conditioning Theory as a Predictor of Online Product Selection

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ABSTRACT

The present research applies operant conditioning theory to the question of what products and services consumers will shop for and buy online. Operant conditioning theory explains differences between products that are used to alleviate uncomfortable experiences (negative reinforcement) and those providing enjoyable experiences (positive reinforcement). The preliminary results described in this study confirmed the importance of operant conditioning as a factor in the behavior of online shoppers. For example, when asked to provide an open-ended list of products that they had shopped for, our respondents mentioned products that produce positive reinforcement 476 times versus only 4 mentions for those that create negative reinforcement. Furthermore, for a list of seventeen common product categories, the results showed that respondents were not only less likely to shop for negative reinforcement products but also even less likely to purchase negative products online than positive products. The results of this exploratory study lay the groundwork for future research by introducing negative and positive reinforcement as a predictor of Internet shopping behavior.

Keywords: electronic commerce, operant conditioning, reinforcement, buyer behavior

INTRODUCTION

With the failure of many online commercial sites, business managers are re-evaluating their approaches to eCommerce. In the last few years, some research has been able to clarify the behavior of online shoppers. Much of this research focuses on understanding the shoppers themselves. However, several important management questions about products remain: What type of products will consumers seek or buy on the Internet? Why do consumers choose these...
products over other products? Are there different categories of products consumers will shop for but not purchase online? The authors propose using operant conditioning theory to answer these questions. The present research begins with a description of the existing literature relevant to Internet shopping behavior. After the literature review, operant conditioning theory and its application to understanding buyer behavior is discussed. Lastly, three hypotheses are presented that test whether the use of operant conditioning theory contributes to a more complete understanding of the online shopping process.

**Shopping Behavior on the Internet**

Who will buy online? Much of the existing research on Internet shopping behavior has focused on predicting the type of consumer who is likely to use the Internet to search for or buy products. For example, Bellman, Lohse & Johnson (1999) investigated several predictors for whether an individual will buy online. They found that the most important determinant of buying on the web was previous behavior such as using the Internet to search for product information (i.e., pre-purchase search). Bellman et al. concluded that several demographic variables such as income, education, and age have a modest impact on the decision of whether to buy online. Other research has pointed to the importance of consumer risk perception in predicting Internet purchase behavior. For example, Vellido, Lisboa, & Meehan (2000) found that online purchase behavior was best predicted by consumer risk perception of shopping on the Internet. In addition, Bhatnagar, Misra & Rao (2000) developed a two-part definition of perceived risk to examine its impact on Internet shopping behavior. Their two types of risk were product category risk and financial risk. High product risk represented conditions when the product was technologically complex, satisfied ego needs of the purchaser, was high priced, or was sold based on its feel or touch. High financial risk was defined by fears about the safety of consumers’ financial information online. Their results indicated that increases in both types of risk generally decreased the likelihood of online purchase behavior.

Why do people use the Internet to shop? Evans and Wurster (1999) describe the Internet as a rich source of information for many products that is convenient to access. As the Internet matures, its importance as a source for product information is also increasing. For example, Ramaswami, Strader, and Brett (2000) reported that online shoppers of financial products used both online channels and personal channels (e.g., a broker) in their information search activities. Further, in a study of new car buyers, Ratchford, Telukdar, and Lee (2001) found that heavy users of Internet sources were also heavy users of printed sources of information such as car ratings books and dealer brochures. Though information-rich, the Internet does not seem to be used as a substitute for other sources of information. If the richness of the Internet is not the sole reason for using it, it seems reasonable that the convenience of online shopping could be a primary motivation.
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