The Role of Impulsiveness in a TAM-Based Online Purchasing Behavior Model

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ABSTRACT

This article investigates consumer online purchasing behavior using an augmented Technology Acceptance Model. Particularly, we posit that Web use leads to intention to purchase online. Impulsiveness, Web use, and subjective norm are included in the model to test several hypotheses concerning online consumer beliefs, intentions, and the effect of psychological traits. We developed a survey instrument to collect data and used structural equation modeling to validate the research model. All of our hypotheses were confirmed except the one that links subjective norm and online buying behavior. The positive relationship between consumer impulsiveness and online purchasing behavior suggests that online stores should design their Web sites to attract impulse purchases.

Keywords: e-commerce; impulsive purchasing; information technology adoption; online purchasing behavior; subjective norm; system evaluation; Technology Acceptance Model (TAM); Web use

INTRODUCTION

The Internet has become an integral part of people’s daily lives. Consumers use the Internet for various purposes, such as information seeking, online purchasing, and communicating with people around the world. The widespread use of computers and communications technologies presents many behavioral and psychological questions with respect to the adoption and use of the technologies. In the context of technology adoption, the theory of reasoned action (TRA) is often used to explain diverse decision-making behaviors by relating an individual’s attitudes and social norms to intentions to act (Lee & Park, 2001).

It is expected that 75% of US and Canadian firms will maintain or increase their e-commerce investment (Gatti, 2004). Jupiter estimates that B2C will grow 17% annually by 2008 (Gatti, 2004). This rapid increase in online sales shows...
that online shopping is becoming a mainstream channel for acquiring goods and services. Because the Internet is an important channel for communication with customers, e-marketers are motivated to convert casual Web viewers into paying customers for products and services.

Online vendors are eager to attract casual visitors to making impulsive purchases of merchandise. Impulse buying is a documented consumer behavior. Impulsiveness is a well-recognized social psychological trait that plays a significant role in consumer decision making (Bellman et al., 1999; Donthu, 1999; Joines et al., 2003). Consumers constantly are engaged in impulsive buying either in physical stores or online. User Interface Engineering (www.uie.com, 2001), a leading consulting firm in Web site usability, claims that impulse purchases represent almost 40% of the money spent on e-commerce sites. The development of the digital economy makes impulsive purchasing even more convenient and pervasive. Individual consumers exhibit different levels of susceptibility to impulse buying, and there are numerous factors that affect such behavior (Mendelson, 1964). Online vendors are convinced that a substantial portion of their sales is attributed to impulse purchases (Hedegaard, 2000). According to a survey of 1,001 consumers by a Web marketing company, FreeRide, in 1998, online shoppers are more receptive to known or trusted brands when making an impulse purchasing decision. Impulsive purchasing is bound to increase as the Internet makes it easier for consumers to access a wide range of brands and to compare different products without ever leaving home.

Despite the extensive literature devoted to consumer behavior in retail stores and direct marketing, cyber shopping is a new shopping mode that has not been explored fully. Little is known about how personal traits affect online shopping behavior. The purpose of this study is to identify the factors that affect online transactions as well as to evaluate how consumer impulsiveness affects online intention to purchase. We use the Technology Acceptance Model (TAM) as the theoretical basis to frame our study.

**BACKGROUND AND RESEARCH ISSUES**

Our model expands TAM with additional behavioral and social constructs. TAM was studied extensively, and its effectiveness in predicting the use of a technology is validated by numerous studies (Adams et al., 1992; Agarwal & Karahanna, 2000; Korzaan, 2003). However, TAM focuses on the aspects of the technology as perceived by the user and overlooks behavioral and sociological issues that may affect the interaction between the technology and the user. In marketing, such behavioral and social factors as impulse and subjective norms have long been recognized as significant determinants of consumer purchase behavior (Fishbein & Ajzen, 1975; Rook & Fisher, 1995). Our model addresses two additional constructs — impulsiveness and subjective norms. Some studies expanded TAM to incorporate subjective norms, but none has addressed impulsiveness along with TAM (Karahana et al., 1999; Lohse & Spiller, 1998).

**Technology Acceptance Model**

The original TAM (Davis, 1986) has three constructs: (1) perceived ease of use, (2) perceived usefulness, and (3) usage. Its primary objective is to predict and explain the use of a technology. Later, the model was expanded to include the intention to use the technology as a mediator variable between the independent variables (perceived ease of use and perceived usefulness) and the dependent variable (usage of the technology). Perceived ease of use and usefulness were also replicated to substantiate the reliability and validity of the scales (Adams et al., 1992).

Numerous studies have utilized, extended, and validated TAM in various types of technology. Some employed TAM to investigate the system usage (Gefen & Straub, 1997; Klopping & McKinney, 2004; Szajna, 1994), while others explored the attitudinal aspect of TAM (Igbaria et al., 1995; Lee & Park, 2001). Davis’ instrument was used to evaluate software packages, and the results support the pre-