

Chapter 17

A Study of the Impact of Individual Differences on Online Shopping

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ABSTRACT

Previous studies explored the effects of individual cognitive and affective reactions on online shopping and those of individual differences on usage of information systems. However, few studies evaluated how individual differences affect online shopping. This paper draws on the theory of reasoned action (TRA) and the technology acceptance model (TAM) as it attempts to gain understanding of individual difference impacts on online shopping attitudes. The model was tested using data collected from a Web survey, and 171 questionnaires were collected and analyzed. Results show that online shopping experience, level of Internet usage, cognitive absorption, personal innovativeness, and computer self-efficacy positively influence online shopping attitudes, and that perceived usefulness is a significant mediator, but only between online shopping attitudes and two individual differences variables: the level of Internet usage and cognitive absorption.

INTRODUCTION

In 2008, about 1.4 billion people (22% of the world's population) used the Internet (Internet World Stats, 2009), and in the United States, almost 60% of the 220 million Internet users spent \$138

billion online, an increase of 7.6% from the prior year (U.S. Census Bureau, 2009). Yet, there are many questions remaining about why consumers buy online. According to the Nielson Company (2009), about 40% of the world's online population has made a purchase online (an increase of 10% from two years ago), and 60% of global online

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consumers used their credit card for a recent online purchase. Given the rapid growth of electronic commerce, continued research on the factors that influence online shopping is vital.

Within IS usage research, individual differences can be classified into four categories: cognitive style, personality traits, demographics, and situational factors (Alavi & Joachimsthaler, 1992; Karahanna, Ahuja, Srite, & Galvin, 2002). Many variables have been discussed in studies of online shopping such as product perceptions, shopping experience, perceived characteristics of the Web, consumer characteristics, and consumer risks (Chang, Cheung, & Lai, 2005), and demographic information has been collected by der Heijden, Verhagen, & Creemers (2003), Shih (2004), and Torkzadeh and Dhillon (2002). However, no single study has explored all four categories of individual differences, and this paper attempts to address this shortfall by incorporating TRA (Fishbein & Ajzen, 1975) and TAM (Davis, 1989) into the study of online shopping attitudes.

Theoretical Foundation

Davis (1989) found that an individual’s attitude towards using a computer system is directly affected by two beliefs: perceived usefulness and perceived ease of use. The goal of TAM (Figure 1) is to explain the general determinants of computer acceptance, and this model has been used in many

studies to explore user perceptions of system use and the probability of adopting an online system.

Further, TAM has been used to predict user acceptance (Lederer, Maupin, Sena, & Zhuang, 2000). The model helps researchers understand the factors of technology adoption that affect user acceptance and why people resist using computers (Chung & Tan, 2004). A few studies have augmented TAM with other theories in order to improve its specificity and explanatory power (e.g., Hu, Chau, Sheng, & Tam, 1999; Legris, & Collette, 2003), and the model has also been extended to explore the user acceptance of an online system (Chung & Tan, 2004; Shang, Chen, & Shen, 2005; Shih, 2004).

Attitudes toward behavior and subjective norm are two independent variables used in TRA (Fishbein & Ajzen, 1975). The first variable in the model (Figure 2) is defined as the individual’s positive or negative feelings about performing a behavior, and the second is defined as an individual’s perception of whether people important to the individual think the behavior should be performed. TRA explicitly describes the mechanisms through which individual differences influence behavior, and it proposes that attitudes are impacted by people’s beliefs about whether others think they should perform the action. TRA has been used for predicting cognitive and affective behavior using the belief–attitude relationship in social psychology (Shih, 2004), and Ajzen and Fishbein (1980) have shown how individual differences such as personality, cogni-

Figure 1. Technology acceptance model (TAM) (From Davis, 1989)

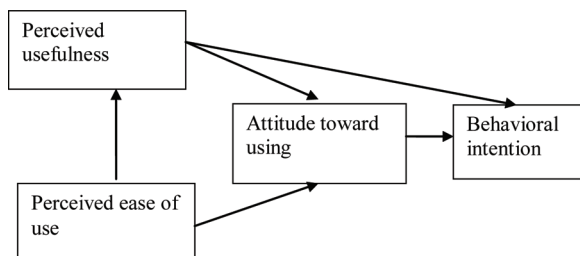
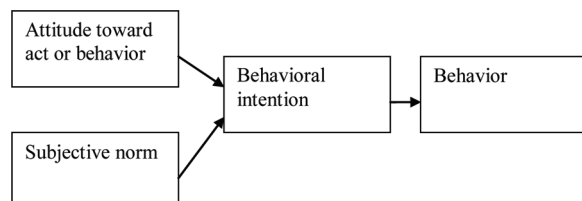


Figure 2. Theory of reasoned action (TRA) model (From Fishbein and Ajzen, 1975)



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