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.

Keywords: E-Business, E-Commerce Strategy, Individual Differences, Online Shopping, Perceived Risk, Perceived Usefulness

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 Nielsen 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 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
derceptions, shopping experience, perceived
characteristics of the Web, consumer character-
istics, 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 determi-
nants 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, & Collerette, 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 vari-
able 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 dif-
fences 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)

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