A Cross-Cultural Study of the Extended TAM for Online Purchase Intentions of Sport Products

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The extended technology acceptance model has proven to be robust and parsimonious in previous research among several contexts including the Internet use (Bruner & Kumar, 2005; Lin & Lu, 2000; Van der Heijden, 2003), mobile commerce (Wu & Wang, 2005), e-commerce with non-sport products (Childers, Carr, Peck, & Carson, 2001; Koufaris, 2002), and online learning (Saadé & Bahli, 2005). Despite robustness of the extended TAM, its applicability is still in question. For instance, several researchers (e.g., Jarvenpaa, Tractinsky, & Saarinen, 1999; Lee & Green, 1991; Maholtra & McCort, 2001; Pavlou & Chai, 2002) have highlighted that models and theories of consumer behavior need to be validated through a cross-cultural validation process to ensure their applicability. However, the extended TAM has not been formally subjected to cross-cultural validation, especially in the sport context, yet. Jarvenpaa, Tractinsky, and Saarinen (1999) also pointed out the need for cross cultural validation in the online setting by suggesting that consumers might have different expectations of the factors influencing how consumers perceive the online retailers trustworthy depending on their cultures. Accordingly, there is a need for cross-cultural validation for the extended TAM. As such, this study aims to validate the extended TAM by applying it in the sport context and comparing it within two cultures (i.e., Korean and American) to evaluate its applicability.

The TAM was first introduced by Davis (1986) to understand how users accept information system in the workplace. The TAM consists of the ability to predict peoples’ computer acceptance from their intentions, and the ability to explain their intentions in terms of their attitudes, perceived usefulness, perceived ease of use, and related variables (Davis, 1993). Davis (1986) considered attitude, perceived usefulness, and perceived ease of use as user motivations. The TAM posits the relationships among the constructs that were derived from the theory of reasoned action (TRA; Fishbein & Ajzen, 1975), expectancy theory (Vroom, 1964), and self-efficacy theory (Bandura, 1977, 1982). For instance, the TRA provides a theoretical foundation for attitude, and online purchase intentions. The TRA has been broadly used to explain behavioral intentions and/or behavior across a broad number of human behaviors (Fishbein & Ajzen, 1975).

Expectancy theory and self-efficacy theory provide theoretical foundations for perceived usefulness and perceived ease of use, respectively, in the research model. According to expectancy theory, use of information system can be determined by expectation that use of the system leads to good performance, the expectation that good performance will lead to desired outcomes, and the valence of available outcomes (DeSanctis, 1983). Self-efficacy theory addresses that people hesitate or give up activities they believe beyond their capabilities, whereas they attempt challenging activities and select situations they judge themselves capable of dealing with (Bandura, 1983). The TAM has provided many researchers a conceptual framework for explaining online buying behavior (Gefen, Karahanna, & Straub, 2003; Ha & Stoel, 2009; Pavlou, 2003).

In addition to the TAM, social exchange theory also provides the theoretical rationale for online consumer behavior. According to social exchange theory, trust is essential in a social exchange and determines people's expectations from the relationship because rewards cannot be guaranteed in a social exchange (Blau, 1964; Konovsky & Pugh, 1994; Lewis & Weigert, 1985; Luhmann, 1979). Because consumers transact with unknown retailers via the Internet, they are more likely to perceive risks regarding transactions.

Based on the literature reviewed, a total of eight hypotheses were developed in this study. The hypotheses posited significant differences between Korean and U.S. students in terms of the relationships between the constructs. The relationships include the positive influence of: perceived ease of use on perceived usefulness (H1), perceived ease of use on trust (H2), perceived usefulness on attitudes (H3), trust on attitudes (H4), perceived usefulness on intentions (H5), trust on intentions (H6), and attitudes on intentions (H7).

In order to address the purpose of this study, a survey was conducted. Students (N = 498) were sampled from two large universities in the U.S. (n = 266) and in Korea (n = 232) through convenience sampling method. Calder,
Phillips, and Tybout (1981) suggested that homogeneous convenience samples increase the rigor of the theory test by providing more precise predictions and enhancing statistical-conclusion validity, justifying the use of convenience sampling.

A self-administered questionnaire was used in the study. For instance, scales for perceived usefulness, perceived ease of use, and trust were adapted from a study of Gefen et al. (2003). Scales for attitudes and online purchase intentions were adapted from the studies of Ajzen and Madden (1986) and Pavlou (2003), respectively. Respondents were asked to rate the measures of perceived ease of use, perceived usefulness, trust, and online purchase intentions on seven-point Likert scales, and to rate the attitudes on an seven-point evaluative semantic differential scales.

After data was collected, the data from respondents who had purchased sport products online was only used for data analysis. The Cronbach's alpha coefficients ranged from .87 to .92, and from .83 to .86, in Korean and U.S. samples, respectively. Accordingly, all constructs achieved an acceptable alpha level of .70 or above in both samples (Nunnally & Bernstein, 1994). The correlation matrix indicated that significant levels of multicollinearity did not exist (Kline, 2011), and the correlations among the constructs ranged from .473 to .717 and from .447 to .784 in Korean and U.S. data, respectively, indicating that convergent validity present. The data is currently being analyzed and will be interpreted following the completion of a technical report for the university involved in this study. Complete results and implications will be reported at the NASSM 2014 conference.