Purchase Intention of Sport Team Licensed Merchandise: Comparison of First- and Second-order Models of the TPB

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Revenues from the sales of sport licensed merchandise are important for maintaining financial viability within the sport industry (Sherman, 2003). Various studies have examined constructs such as team identification, perceived value, and self-image congruence in an effort to explain the consumption of team licensed merchandise (Kwak & Kang, 2009; Kwon, Trail, & James, 2007). This study attempts to predict intentions to purchase sport licensed merchandise using the theory of planned behavior (TPB: Ajzen, 1991), adopting second-order latent factors to explain relationships between subordinate components of the variables within the TPB.

The TPB has been used as a framework to predict intention and actual behavior in various behavioral domains including physical activity (Hagger, Chatzisarantis, & Biddle, 2001) and sporting event attendance (Kwon & Cunningham, 2003). The central factor to predict an individual's behavior is the individual's intention to perform a given activity and three conceptually independent determinants, attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991). Although the three basic variables within the TPB have been found to be useful predictors of intentions and actual behavior, a considerable portion of the variance in intentions is not explained by those variables (Hagger & Chatzisarantis, 2005). As a result, specific components of basic variables of the TPB such as affective attitudes (Bagozzi, Lee, & Van Loo, 2001), self-efficacy (Ajzen, 2002), and descriptive norms (Ajzen, 2002; Conner & Armitage, 1998) have been identified in the TPB research. This led to the introduction of the extended versions of the TPB with respect to the basic constructs in the TPB. The extended versions of the TPB result in better prediction of intention and behavior (Hagger & Chatzisarantis, 2005). In the extended version of the TPB, attitude is conceptualized as affective and instrumental (i.e., cognitive) attitude (Bagozzi et al., 2001). Subjective norms are conceptualized as injunctive (i.e., consistent with subjective norm) and descriptive norms (i.e., perceptions of what most individuals do) (Jackson, Smith, & Conner, 2003). Perceived behavioral control is conceptualized as perceived controllability and self-efficacy (Conner & Armitage, 2001; Hagger & Chatzisarantis, 2005). Perceived controllability refers to individuals' beliefs about the extent to which performing the behavior is up to them and self-efficacy refers to individuals' capabilities to perform a sequence of behaviors (Ajzen, 2002).

Building on the work of Bagozzi et al. (2001) and Ajzen (2002), a second-order factor model of the TPB was introduced to address the issue of parsimony in the TPB and to provide discriminant validity among variables in the TPB (Hagger & Chatzisarantis, 2005). Hagger and Chatzisarantis found that confirmatory factor analyses of first- and second-order models of the TPB fit the data well and structural equation models explained a large portion of the variance in intention and behavior for both dieting and exercising behavior. Thus, the purpose of the study is to compare first- and second-order models of the TPB in sport consumption behavior in order to provide additional support for the premise that variables of the TPB can be subsumed by global higher-order factors, while there is distinction at the first-order level (Bagozzi et al., 2001).

Data was collected from 384 (men = 248, women = 136) students at a large Southeastern University in the U.S. The majority of respondents were Caucasian (70.3%) and the mean age was 21.88 (SD = 3.90). A questionnaire was adopted from Hagger and Chatzisarantis’ (2005) study and all items were modified to measure consumption of sport team licensed merchandise. The data was analyzed using Mplus 5.0. Two confirmatory factor analyses (CFA) and two SEM were performed to compare the first- and second-order factor models. Latent factors in the first-order factor model include affective and instrumental attitude, injunctive and descriptive norms, self-efficacy, perceived controllability, and intentions. In the second-order CFA model, second-order factors of attitudes (indicated by affective and instrumental attitude), norms (indicated by injunctive and descriptive norms), and perceived behavioral control (indicated by self-efficacy and perceived controllability) were estimated. The results showed that each of the measurement models fit the data well (Chi-square (155) = 500.860, CFI = .910, RMSEA = .076 for the first-order model and Chi-square (161) = 511.794, CFI = .909, RMSEA = .075 for the second-order model). The results supported the validity of the first- and second-order CFA models in the sport consumption domain. The results of two SEMs showed that each model fit the data well (Chi-square (209) = 596.525, CFI = .928, RMSEA = .069 for the
first-order model and chi-square(218) = 615.418, CFI = .927, RMSEA=.069 for the second-order model). The results provide support for the premise that higher-order factors can explain the relationships between the first-order TPB variables (Hagger & Chatzisarantis, 2005). Affective attitude, injunctive and descriptive norms, and self-efficacy were significant predictors of purchase intention and those constructs from the first order TPB model explained 67.1% of the variance in intentions to purchase sport team licensed merchandise. The variables from the second-order TPB model accounted for 70.7% of the variance in purchase intention of sport team licensed merchandise and all second-order variables such as attitude, norms, and perceived behavioral control had an impact on purchase intentions.

The primary focus of the study was to predict purchase intention of sport team licensed merchandise using the TPB adopting second-order model of the TPB. The results of the first order TPB model indicated that purchase intention of sport team licensed merchandise was influenced by affective attitude, injunctive and descriptive norms, and self-efficacy. Thus, the subordinate components of the variables within the TPB have values in that it enables to identify the specific components that explain purchase intention. The current study provided an evidence of a second-order structural equation model to explain the differentiated variables within the TPB in the sport consumption domain.

The satisfactory goodness-of-fit for the second-order factor models supports the hypothesis that the differentiated variables within the TPB can be explained by higher-order factors (Ajzen, 2002). The findings of the current study indicated that the use of differentiated variables of attitudes, subjective norms, and perceived behavioral control within the TPB model is valid but the influence of those variables on intentions can be subsumed by higher-order factors. Future research should replicate the findings of the study in order to provide additional supports for the higher-order factor model within the TPB.