Application of Diffusion Theory: A Case Study of the New Golf Product Market

Soojin Kim, Kutztown University of Pennsylvania
Yongae Kim, Kutztown University of Pennsylvania

Marketing Abstract 2011-131

All products and services go through a life cycle with varying degrees of period. In order for an innovation to successfully diffuse, the introduction stage becomes critical. Due to miscommunication with consumers and utilization of inefficient introduction strategies, many companies end up with a substantial financial loss (Yoh, Pedersen, & Park, 2006; Marez & Verleye, 2004). Therefore, prior to introducing a new product, understanding the consumers needs and characteristics and designing marketing activities accordingly would be essential for success.

The theory of diffusion of innovation is a widely accepted and applied theory in various disciplines. Rogers (1995) defines diffusion as a process by which an innovation is communicated and adopted through certain communication channels to members of a social system. On the basis of one’s degree of innovativeness, the members of a social system are then classified into five adopter categories known as: innovators (2.5%), early adopters (13.5%), early majority (34%), late majority (34%), and laggards (16%). The literature suggests that each group possess distinct characteristics that distinguish from one another. Socioeconomic, personality, attitudinal, consumption patterns and communication behaviors are variables that have been found to distinguish the segments (Cheng et al., 2004; Price, Feick, & Smith, 1986; Robertson, 1970; Robertson, Zielinski, & Ward, 1984). On the other hand, there is also a significant amount of research that claims the characteristics of each groups are in fact not identical across products (Kotler, 2000).

Despite innovations in sport is constant and widespread, diffusion theory has rarely been applied in the sport context. Given the fact that new models, features, and technologies are often introduced, the diffusion theory is applicable to golf product market. Therefore, the purpose of this study was two-fold: first to generate the standardized five adopter categories on the basis of innovativeness construct; secondly to examine whether the selected variables, demographics, golf consumptive behavior, communication behavior, and product involvement are able to distinguish the adopter categories in golf product market.

A total of three hundred and seventy three (373) online surveys were completed by adult golfers in a mid-western golf country club. After omitting incomplete cases, there were a total of 330 usable cases with 88.5% response rate. The majority of the respondents were male (85.8%), well educated (70.9% had at least a bachelor’s degree), and have high level of household income, wherein 50.9% made over $100,000 annually. The survey was comprised of seven major parts: innovativeness (Goldsmith & Hofacker, 1991), information acquisition activity for new golf product purchase (Murray, 1991), word-of-mouth communication behavior (Lam & Mizerski, 2005), susceptibility to interpersonal influence (Bearden, Netemeyer, & Teel, 1989), golf product purchase involvement (Laurent & Kapferer’s, 1985), golf consumptive behavior, and demographic characteristics. Exploratory Factor Analysis (EFA) and internal consistency analysis were conducted to assess the appropriateness of the measurement. In order to generate the theory based standard five adopter group, a percentile split-up classification method was applied. Furthermore, a one way analysis of variance (ANOVA) and chi-square were conducted to examine the differences between adopter categories based upon demographics, golf consumptive behavior, communication behavior, and golf product purchase involvement. To reduce testwise alpha inflation, a Bonferroni adjustment set the significant criterion at $p < .05$. SPSS 18.0 for Windows was utilized to perform the aforementioned data analyses.

With five adopter categories generated using the percentile based split-up, ANOVA was conducted to examine the differences among groups on the selected variables. The results indicate that there are significant differences between the groups on objective information source $F (4, 319) = 5.56, p < .001$, susceptibility to interpersonal influence $F (4, 315) = 8.45, p < .001$, golf product purchase involvement $F (4, 317) = 2.76, p = 0.28$, and golf consumption behavior $F (4, 324) = 23.37, p < .001$. However, there was no significant difference between the groups on word-of-mouth communication activity $F (4, 314) = 1.48, p = .209$. The results showed significant differences between the groups, specifically on golf skill level $F (4, 319) = 4.86, p = .001$ and age $F (4, 320) = 4.67, p = .001$.

It is worthy of notice that early adopter group is comprised of individuals who are more likely to utilize objective information source ($M = 3.86, SD = .86$) and be involved in golf product purchase ($M = 3.10, SD = .44$). On the contrary, innovators tend to use their own experience by demoing the product in gathering information rather than relying on marketing sources. In addition, the innovator group showed the highest mean scores ($M = 3.36, SD = .92$) on golf consumptive behavior. This provides greater insights into understanding purchase behaviors of consumers in the innovator group. They are more likely to spend a greater amount of money for, and more frequently purchase golf products compared to the other groups. In regards to susceptibility to interpersonal influence, the innovator group had the lowest mean ($M = 1.53, SD = .30$). This result is consistent...
from previous research (Clark & Goldsmith, 2006; Manning, Bearden, & Madden, 1995) in that earlier adopters are likely to be less susceptible to interpersonal influence in making new product decisions.

The findings of this study provide sport researchers and practitioners with important theoretical and practical implications. A key aspect of the study is a role of innovator as an opinion leader. It is expected that the findings enable sport marketers to develop effective communication techniques or marketing strategies using appropriate channels to reach their prospective consumer. In addition, the findings contribute to the existing body of diffusion research by applying to the sport context. The implications and practices will be discussed and future research directions are provided in this presentation.