

Exploring Core Product Factors through the Analysis of Taekwondo Match Attack Patterns

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Introduction

Sporting events provide a unique nature of athletic competition (Madrigal, 1995; Sloan, 1989). The uniqueness, uncertainty, and drama all serve as an important attraction to spectators. The drama that attracts fans to sport maybe attributed to the core element (i.e., game form) more than any other element of the sporting event (Bee & Havitz, 2010).

Specifically, the international sport of Taekwondo has seen interest decline amongst its core consumers. Fans of the sport consider the core product (e.g., the match) to be humdrum and apathetic despite the physical and violent nature of the sport. Moreover, The World Taekwondo Federation (WTF) has made several attempts to rectify the problem by implementing changes to the game form via the official rule book (WTF, 2010).

Literature Review

Previous research in the area of martial arts has focused on changes made in attack techniques as a result of rule changes (e.g., Ha, 2005; Joo, 2005). Choi & Park (2006) found differences among Taekwondo weight classes and type of starting attack.

In the area of spectator sports, Palmatier, Dant, Grewal, and Evans (2006) found that customer satisfaction has the ability to create long term benefits for sport leagues, including positive word-of-mouth, cross-buying, and customer loyalty. Previous scholars have examined how the peripheral elements of sporting events (e.g., in-game promotions, sponsorship) enhance consumer satisfaction (e.g., Nancy, 1996; Meenaghan, 2001, Urich & Koenigstorfer, 2009). However, there has been limited research as it pertains to how the core sport product and its subsequent rule changes enhance or decline consumer satisfaction.

Therefore, the purpose of this study was to examine elements of the core product (i.e., attack patterns) in professional Taekwondo, and attempt to uncover the factors leading to the lack of customer satisfaction amongst the sport's fans.

Method

A sample of 15 matches (n=15) from each weight-category were selected from men's performances at the 17th National Defense Department Taekwondo championships in Korea. A quantitative content analysis coding sheet was used to analyze players' performances and skill levels (e.g., Middle Dollyo Chagi-1. Middle Dui Chagi-5, etc). Secondly, coders independently recorded the various attack patterns employed by each

participant (i.e., leadoff attack, counterattack, and attack skill per step). Thirdly, inter-coder reliability was achieved (99.4%) by coding five (4.2%) matches of the 120 scheduled matches and proved that the instrument was both valid and reliable.

In regard to data analysis, descriptive statistics were employed to analyze patterns in the number of attack attempt, winner/loser group, attempt skill, score skill, and step score. Secondly, the Chi-square test (χ^2) was utilized to compare and analyze attacking patterns by each weight category, attacking patterns by winner/loser group with an alpha level $p < .05$.

Result

The results indicated that the 1st attack pattern was used the most at 2,742 times (70.3%), followed by the 2nd attack pattern which was used 892 times (22.9%), the 3rd attack which was used 201 times (5.2%) and the 4th attack was used 65 times (1.7%).

Also, according to the attack pattern between winner and loser, there were no significant differences on the six weight-categories except for fin-weight ($\chi^2=14.28$, $df=2$, $p=.001$) and feather-weight ($\chi^2=7.66$, $df=2$, $p=.022$). Additionally, the results indicated that the winner group used the 1st attack more than the loser groups, but the loser group used the 2nd attack more than the winner group.

In addition, there were differences in the attacking types between winner and loser that the leadoff attack was shown greater than the counterattack ($\chi^2=110.29$, $df=1$, $p=.001$). The leadoff attack by the winners (50.6%) was less than losers (67.2%). The counterattacks by the winner (49.4%) were greater than loser (32.8%). The six weights excluding welter- and heavy- weight-categories were found the significant differences ($p < .05$). Also, in the seven weights, excluding light-weight, the number of total winners' attack attempts was less than the losers'.

Finally, the results specified that the Middle Dollyo Chagi, Middle Balbuchyeo, and Middle DollyoChagi were the most commonly used attack patterns.

Discussion

The current study analyzed Taekwondo match attack pattern in order to find core product factor for consumer satisfaction. The uniqueness and uncertainty of the core product outcomes are very important factors for fans. However, the results indicate that Taekwondo matches are very predictable and lack spontaneity. Specifically, most attack attempts were stopped after the first or second attempt, and most winners reduced their attack attempts when they led the match. Therefore, it is apparent that elements of the game form can impact consumer satisfaction.

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