

ORIGINAL ARTICLE

Consumer Satisfaction and Event Quality Perception: A Case of the 2009 World Professional Taekwondo Tour

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Abstract

Today, numerous martial arts events are held around the world. However, scholarly efforts have not been made to understand the spectator profile in martial arts events. The purpose of this study was twofold: (a) to identify perceived event quality factors that influence spectators' satisfaction and revisit intention, and (b) to examine event quality perceptions, satisfaction, and revisit intentions through the lens of spectator gender. Regression analyses and ANOVAs were employed to analyze the survey data collected from spectators who attended the 2009 World Professional Taekwondo Tour. Game performance, entertainment, and socialization opportunity were found to be important variables for spectator revisit intention. The results also showed that event quality perceptions varied depending on the gender of spectators. Marketers can develop effective event operation management and market strategies and stay relevant in a competitive market environment. The issue of event quality in special events such as martial arts events has not received scholarly attention. As such, the results of the current study will contribute not only to the event management literature but also to the further growth of the martial arts industry.

Keywords: spectator profiles, gender, Taekwondo event

Introduction

The martial arts have experienced widespread and substantial growth and increased global awareness, while evolving into a mature and highly competitive industry (32). This has also created significant challenges. Issues such as the competitive business environment and evolving customer needs have caused martial arts organizations to reevaluate their business practices. Consequently, it is crucial that these organizations adapt to these continuously changing and highly competitive market environments (33, 34) and develop effective event marketing and operation strategies (23).

Today, thousands of martial arts events are being held every year, from grassroots events (i.e., local martial arts tournaments) to professional martial arts events (i.e., Ultimate Fighting Championships [UFC]), K-1, and World Extreme Cagefighting

[WEC]). Managers in martial arts events are facing the challenge of positioning their events among their target markets. This obstacle* is mostly due to the lack of a clear understanding of their spectators (13) and effective strategies to satisfy them by offering high quality events and services (20, 23, 29, 33).

In the event management literature, a substantial amount of prior research has shown the positive relationship between service quality (1, 21, 29, 33, 35, 56). Among many potential factors, gender has been considered one of the most critical factors that influences service perceptions (1, 56). However, the gender differences in consumers' perceptions of service quality and consumption behavior have been given little attention in the context of sport and martial arts events (24, 40). As a result, very little is known about the decision-making process of the spectators attending these events.

Accordingly, the purpose of this study is twofold: (1) to

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identify the perceived event quality factors that may predict spectator satisfaction and revisit intention and (2) to examine event quality perceptions, satisfaction, and revisit intentions through the lens of spectator gender.

Research questions developed to guide this study were:

1. What are the demographic profiles of spectators at the 2009 World Professional Taekwondo Tour?
2. What are the relationships between spectators' perceived event quality and selected key consumer variables (i.e., satisfaction and revisit intention)?
3. Are there any differences in quality perceptions toward the event, overall event satisfaction and revisit intention based on spectator gender?

Literature Review

Martial arts events

An intense growth in both participation and interest has led to martial arts becoming an essential part of the total sports landscape that not only conveys a healthy lifestyle, but also provides for cultural learning with both an educational and entertainment function in Western countries (34). In the United States (U.S.), the number of martial arts participants increased from 3.8 million in 1993 to more than 5 million in 2012 (57, 58).

In addition to the increased number of martial arts participants worldwide, martial arts events have become popular entertainment products. The size and type of events vary from local to international in scope, but also of note is that the level of practitioner experience varies from amateur to professional (33). For example, Mixed Martial Arts (MMA) events have emerged as a popular spectator sport in America, as evidenced by the success of new forms of martial arts spectacles (e.g., the UFC, K-1, and WEC). In particular, the UFC has quickly become one of the fastest-growing spectator sports in the world. Serving as a testament to its immense popularity, TIME magazine estimated the UFC's market value to be over \$1 billion (25).

The World Taekwondo Federation (WTF) was formed in 1973 as the legitimate international governing body of the sport. Since the creation of the WTF, Taekwondo (TKD) has become an official event in numerous international sport events such as the Commonwealth Games, Pan-American Games, and Asian Games. In this process, the WTF and its member organizations have contributed to the globalization of TKD by actively promoting the sport as a formal competitive event on the world's biggest stage, the Olympics (34). In 1988, TKD was one of the demonstration sports of the 24th Olympic Games in the discipline's birthplace, Seoul, Korea. Following its immense

success and overwhelming support, TKD became an official Olympic medal sport at the 2000 Olympic Games in Sydney, Australia.

In an effort to elevate TKD as a major spectator event, the WTF (in conjunction with the Pan-American Taekwondo Union and the Federación Mexicana de Taekwondo) hosted the first professional event of great magnitude in 2009 in Mexico City and called it the World Professional Taekwondo Tour. The WTF had three major goals in establishing this event. The first goal was *to produce the highest-skilled and most marketable athletes in the TKD world [athlete development]*. The 2009 World Professional Taekwondo Tour drew 16 of the world's top Taekwondo athletes, mostly Olympic and World Championship medal winners. The second goal was *to help promote the Sport of Taekwondo as well as the Professional Taekwondo Association and Tour*. During the opening ceremony of the World Taekwondo Tour, WTF President Chungwon Choue said, "WTF has put its utmost effort to create a new image of TKD. This brought about significant achievements, including globalization of TKD, more dynamic and transparent taekwondo competitions, and fair judging." Lastly, this event was prepared *to create career opportunities for TKD competitors on a professional level and promote Taekwondo competition as a viable profession*. For this event, four athletes competed in each weight division for the top prize of \$20,000 (U.S.). The silver medalist took home \$10,000 in prize money, while two bronze-medal winners each earned \$5,000. In total, this event (the first of its kind on an international level) drew over 6,000 spectators for the one-day tournament and received much local and international media attention, making the 2009 World Professional Taekwondo Tour a success in the eyes of event organizers and the TKD community at large. In order to capitalize on the extraordinary success of the 2009 World Professional Taekwondo Tour and to stimulate growth of other martial arts events, understanding event management concepts has become more critical for martial arts event managers than ever before.

Unlike events held by major spectator sporting organizations (i.e., Major League Baseball, National Football League, etc.), martial arts events have struggled in terms of recruiting and retaining spectators. This unfortunate reality might stem from a short event history, ineffective event operations, a failure of the event's marketing and promotional efforts, and/or a lack of event management professionals with knowledge of such specialized events. Additionally, the lack of a more traditional, western-inspired professional league (complete with superstars, regular mega-events, etc.) impairs the formation of a large national audience. To be successful, event managers need to fully understand the socio-demographic and psychographic profiles as well as the consumption patterns of their key target markets (13,

41, 67). This is a very important basic step for market segmentation.

Event quality

Since the concept of service quality was introduced, numerous studies have supported the positive relationship among service quality, satisfaction, and consumer behavior in various business contexts (8, 11, 17, 38, 69). In the fields of event management and marketing, Getz (20) argued that event managers should carefully examine the meaning of quality as applied to their specific event types and goals. From a sport event management perspective, providing high quality and thorough services that elicit heightened levels of spectators' event quality perceptions and satisfaction are very important in predicting their current and future consumption behavior.

In the fields of sport marketing and leisure science, prior research has highlighted the importance of service quality. Murray and Howat (48) examined the relationship between service quality, satisfaction, and behavioral intention by using sport and leisure center customers. They suggested that a heightened level of service quality directly influences satisfaction and satisfaction significantly influences customers' future intentions. By focusing on the physical environment, Hill and Green (28) examined the effects of facility design in professional rugby leagues. They found that the sportscape enhanced future game attendance of home-team supporters. Greenwell et al. (24) suggested that all service experience variables such as *core product*, *physical facility*, and *service personnel* significantly influenced minor league hockey customers' satisfaction. In the college sport context, Kelly and Turley (29) identified nine service attributes that college sport fans used in evaluating their service experience: *employees*, *price*, *facility access*, *concessions*, *fan comfort*, *game experience*, *show time*, *convenience*, and *smoking*. They found that every factor except for concessions significantly influenced fan service evaluations. Tsuji et al. (64) examined the relationships among core and peripheral service quality, satisfaction, and future intention in an action sport event context. They found that quality of both the core and peripheral services significantly influenced satisfaction. Although core service quality did not directly impact future intention, it had an indirect effect on future intentions. Peripheral service quality, however, directly influenced future intentions.

Meanwhile, prior research proposed service quality frameworks to measure sporting event spectators' perceived service quality (i.e., SERVQUAL [50], TEAMQUAL [44], and SPORTSERV [61]). Recently, Ko et al. (36) developed the Scale of Event Quality for Spectator Sport (SEQSS) to measure spectators' sport event quality perceptions. The current research employed Ko et al.'s

SEQSS scale for its comprehensive coverage of diverse aspects of event quality. The SEQSS consists of five primary dimensions including *quality of game*, *augment service quality*, *interaction quality*, *outcome quality*, and *physical environment quality* which were further defined by twelve subdimensions. Specific information on these dimensions is summarized in Table 1.

Service quality, satisfaction, and behavioral intention

Ko and Pastore define service quality as "the customer's overall impression about the service performance, service delivery systems, and overall consumption experiences" (34). Prior studies found a direct effect of service quality on consumer behavior (4, 15, 52, 65, 68). Conversely, other studies suggested that service quality influences customer behavior through satisfaction (7, 17, 45, 46, 52, 63). Following an extensive study on the topic of service quality, Rust and Oliver stated that "Without a doubt, the customer's overall satisfaction with a particular service provider, and perceptions of service quality are interrelated and in many instances are highly correlated" (54). For example, satisfied customers may have less price sensitivity, buy additional products and merchandise, and maintain a high level of loyalty toward an organization for longer periods of time, as compared to less satisfied or dissatisfied customers (27). Thus, customer satisfaction has become a major corporate goal (54) and has manifested itself as a guiding principle in many of the policies and operating guidelines of today's event managers.

McDougall and Levesque (46) researched four service industries (dentistry, auto repair, restaurants, and hairstyling). Their research found that perceptions of service quality positively influenced customers' satisfaction, which in turn influenced future purchase behavior of customers. By surveying retail organization CEOs, Babikas et al. (3) provided empirical evidence that improved service and merchandise quality exerted significant influence on such performance indicators as sales growth and customer growth. Satisfaction played a significant role as a mediator. They concluded that perceived quality was an antecedent to customer satisfaction and perceived quality influenced store performance indirectly through customer satisfaction.

In the context of festival management, Cole and Illum (14) investigated the mediating role of satisfaction on the relationship between rural heritage festival event service quality and revisit intention. They found that the relationship between festival service quality and behavioral intention was fully mediated by satisfaction. Lee and Beeler (40) also identified the positive relationship between festival service quality and behavior intention.

Gender

In terms of gender effects, Snipes and Thompson (57) found that there were significant differences in the evaluation of service quality between male and female customers. Additionally, Buda et al. (10) found that gender had statistically significant effects on service quality dimensions, especially those dealing with the 'tangible' and 'assurance' dimensions. Recently, Lee et al. (41) examined the role of gender and its influence on consumers' service quality perceptions on satisfaction and revisit intention in the context of high profile golf club businesses. Lee et al. (41) identified that both male and female customers were significantly influenced by the 'tangibles' and 'empathy' dimensions for determining their satisfaction. In addition, female customers were more likely to affect service dimensions. Kim, Ko, and Park also investigated gender differences related to service perceptions in both men's and women's college basketball events (30). Consistent with prior research, female spectators were more influenced by service factors than male spectators.

Ultimately, better understanding of consumer characteristics is important for martial arts events organizers, as doing so should lead to an increased number of spectators to their events. To date, however, there has been little substantial research undertaken to develop spectator profiles in martial arts events (33). Previous studies identified positive relationships between service quality and other consumer variables such as customer satisfaction, customer purchase intentions and loyalty (15, 16, 51, 55, 61, 62, 68, 69), but there is a lack of systematic study of spectator perceptions of service quality and satisfaction in the martial arts events context. As mentioned earlier, spectator attraction and retention in a sporting event are critical to the financial success of the host organization (even more so for a sport sector with a low, non-family, spectator base). This is the most common problem martial arts events face in today's sports landscape.

Therefore, to attract and retain spectators at the World Professional Taekwondo Tour, Tour event managers need to understand the characteristics and behaviors of the spectators and participants who attend their events in terms of their socioeconomic and demographic characteristics, along with key psychological variables that influence their attendance. Periodic evaluation of this study may assist in: (a) determining the ever-changing needs and composition of the target market, (b) analyzing the rapidly-evolving market environment, and (c) developing effective and efficient marketing objectives and strategies.

Methods

Participants and procedure

For the purposes of this study, spectators who attended the 2009 World Professional Taekwondo Tour held in Mexico City, Mexico were selected as the research sample. After approval was obtained from the Institutional Review Board involving human subjects, the researchers contacted the director of the World Professional Taekwondo Tour to request permission and assistance with data collection. Data collection was conducted by using a convenience sampling method. The staff distributed the survey at the three main entrances of the venue before, during, and after the event, and the respondents returned their questionnaires to the locations where they initially picked up the survey. A face-to-face, self-administered mode of survey distribution by four research staff, three doctoral students, and a faculty member was used to collect the data. A total of 600 survey packets were distributed to spectators. Survey participation was limited to those adults 16 years of age or older. Overall, 235 successfully completed packets were returned, representing a response rate of 39.2%.

Measurement and data analyses

Each survey packet included items measuring sociodemographic variables and other consumer variables such as event quality perceptions, satisfaction, and revisit intention. To measure event quality, the researchers used a modified version of Ko et al.'s (33) twelve service quality items (i.e., skill performance, entertainment, sociability, fan interaction, fan-employee interaction, ambience, valence, information, concessions, design, operating time, and signage) and a single item measurement scale of service quality (Kwon and Ko [37]). The format of the scale was a 7-point Likert-type scale (1 = strongly disagree to 7 = strongly agree). Previous studies established good psychometric properties for the scale items (e.g., internal consistency and construct reliability). The alpha values (0.75 and 0.91) of the modified single item measures of service quality were equivalent to the results (0.76 and 0.91) of Ko et al.'s SEQSS (36). The values indicated that the items of the 12 sub-dimensions had good internal consistency based on criteria of Kline (31) and Nunnally and Bernstein criteria (49). Additionally, the final scale included three satisfaction items from Nunnally and Bernstein (49), and three intention items from Cronin and Taylor (16). The factors and specific descriptions can be found in Table 1.

The scales were translated into Spanish and later back into English with the help of two bi-lingual (English and Spanish) faculty members teaching Spanish courses at a large Southeastern university. A field test was conducted to assure the accuracy of

Table 1. Event quality factors and definitions of model of event quality for spectator sport

Dimension	Sub-dimensions	Definition (in terms of spectators' perceptions)
Game quality	Skill performance	Quality of athletic performance: aesthetics, excitement, and drama
	Operating time	Convenience of operating hours
	Information	Ease of obtaining up-to-date information about teams, players, products, and events
Augmented service quality	Entertainment	In-game promotion, events, and activities (in addition to game product)
	Concessions	Availability of wide range of food choices
Interaction quality	Staff quality	Attitudes, behaviours, and expertise of service personnel
	Fan interaction	Attitudes and behaviours of other clients
Outcome quality	Sociability	Positive social experiences of being with others who enjoy the same activity
	Valence	Post consumption evaluation of overall outcome (regardless of evaluation of specific aspects of service quality)
Physical environment quality	Ambience	Non-visual aspects of service environment: temperature, lighting, noise, scent, and music
	Design	Functional and aesthetic design of the sports facility
	Signage	Ease of viewing and aesthetic attractiveness of signs within the facility

Note: Adapted from Ko, YJ, Zhang, JJ, Cattani, K, & Pastore, DL. Assessment of event quality of major spectator sports. *Managing Service Quality*. 2011;21(3),304-322.

the translation using two bi-lingual (English and Spanish) Hispanic graduate students at the same university. As a result of the respondents' wording recommendations and feedback, modifications to the questionnaire were made.

Descriptive statistics were obtained using SPSS 18.0 for the variables related to the demographic, psychological, and behavioral intention items. In exploring the research questions, two multiple regression analyses were performed to explain spectator behavior by indicating which variables, in combination, might be more strongly associated with said behavior. One analysis included satisfaction as the dependent variable, while the other analysis included revisit intention as the dependent variable. Eleven event quality perception variables were included as predictors. In addition, a series of one-way ANOVAs (Analysis of Variance) were run to examine significant differences across gender on the event quality, satisfaction, and revisit intention variables.

Results

Demographics

The first research question was: *What are the demographic profiles of spectators at the 2009 World Professional Taekwondo Tour?* The sample consisted of 55% (N = 112) males and 42% (N = 85) females. They ranged in age from 18 to 56 years old (31.6 ± standard error of the mean) and over half of the respondents were under 40 years old (74.9%). The most common income bracket reported by respondents was 'below \$20,001'

(Peso; 28.6%), followed by \$20,001-\$39,999 (19.5%). The next most common income bracket was '\$200,000 and above' (13%), followed by \$100,000 (11.7%). Overall, a large number of respondents (47%) indicated that their household income was higher than \$60,000 (see Table 2). The average household income in Mexico was \$139,740 (19).

A majority of spectators were Mestizo (people of mixed European and Amerindian ancestry, 60%), while 30% were Caucasian. Only 1.8% reported that they were Mulatto (a person mixed between African and Caucasian ancestry). A majority (83%) of spectators had at least a college level education. A little over 26% of the sample reported that they held college degrees, while 28.3 % of respondents were in college at the time of the study. A majority of the respondents had family members of three (24.9%), four (33.7%), and five (19.2%) with them at the event. Over 97% of the spectators attended the event with family members and/or friends. Specifically, a majority of respondents (41%) attended the event with their spouse, brother/sister (15.9%) or their children (46.7%); however, 36.1% attended with their friends. Most of the respondents were either married (50.3%) or single (39.5%).

About 55% of the respondents had TKD experience. They had a relatively high level of TKD involvement (80% of the spectators had over 2 years of TKD training experience) and 75% of them participated in TKD at least 3 times per week. Furthermore, the most common type of information source used in the decision-making process to attend this event was a personal coach (50.3%), followed by the Internet (24.7%), friends (19.1%),

Table 2. Descriptive statistics for the demographic variables (N = 235)

Variable	Category	N	%
Gender	Male	112	54.9
	Female	85	41.7
TKD experience	Yes	108	55
	NO	89	45
Age (M = 31.6) (SD = 11.36)	18-28	86	43.9
	29-39	57	31.0
	Over 45	27	23.0
Ethnicity	White	50	29.4
	Mestizo (Indian & White)	102	60.0
	Mulato (Black & White)	3	1.8
	Other	13	7.6
Education	In high school now	14	7.8
	High school graduate	16	8.9
	In college now	51	28.3
	College graduate	48	26.7
	Graduate degree	23	12.8
	Other	26	14.4
Household income (Peso)	Under \$20,000	44	28.6
	\$20,001-\$39,999	30	19.5
	\$40,000-\$59,999	7	4.5
	\$60,000-\$79,999	18	11.7
	\$80,000-\$99,999	11	7.1
	\$100,000-\$149,999	18	11.7
	\$150,000-\$199,999	4	2.6
	Over \$200,000	20	13.0
Information source	Coach	99	50.3
	Internet	49	24.7
	Friends	37	19.1
	Television	31	16
	Flyers	25	12.9
	Newspaper	12	6.2
	Direct mailings	14	7.2
	Radio	5	2.6
Attend with	Billboards	11	5.7
	Spouse	81	41
	Brother/Sister	31	15.9
	Children	92	46.7
	Friends	71	36.1

television (16.0%), and flyers (12.9%). Printed media such as the newspaper (6.2%) and direct mailings (7.2%) were not popular information sources for recruitment to this event. The least used information sources were the radio (2.6%) and billboards (5.7%). As far as media consumption is concerned, about 33% of spectators showed intention to pay \$50-100 Pesos to watch a TKD event of this caliber on TV (pay-per-view). About 28% suggested \$200-300 Pesos, followed by 13% of respondents would pay over \$500 Pesos.

Relationships between event quality and satisfaction and revisit intention

The second question was: *What are the relationships between spectators' perceived event quality and satisfaction and revisit intention?* Table 3 shows the means and standard deviations for spectator event quality perceptions, overall event satisfaction, and revisit intention. Spectators were asked to report their perceptions on specified event quality factors pertaining to the event. Of those who responded, skill of the athlete and socialization were rated to be the most important factors. More specifically, spectators rated event quality on a 7-point Likert-type scale (1 = strongly disagree to 7 = strongly agree). The mean scores for the event quality factors were: skill performance (6.4 ± 1.15), socialization (6.1 ± 1.39), fan interaction (6.1 ± 1.44), operating time (6.1 ± 1.41), concessions (6.07 ± 1.38), and facility design (6.04 ± 1.39). Additional factor ratings included: entertainment (5.9 ± 1.50), ambience (5.8 ± 1.82), event staff interaction (5.7 ± 1.52), sign of the stadium (5.6 ± 1.76), and information availability (5.5 ± 1.64).

The results of the first multiple regression analysis are shown in Table 4. The authors tested assumptions before examining the results of the multiple regression analysis. The linearity scatter plots showed no evidence of non-ignorable data patterns. Skewness ranged from -1.44 ~ 2.51 and kurtosis ranged from 0.05 ~ 2.95, which indicates normality in the distribution of the data (26). To test the multicollinearity of the data under multi-factor circumstances, a linear regression was performed with one factor set as a dependent variable. Results ($R^2 = 0.819$; Tolerance = 0.252 ~ .555; VIF = 1.80 ~ 3.96) indicate that extreme multicollinearity was not detected (32). Furthermore, no out-of-range scores were found in the data set. The maximum value for Cook's Distance was 0.473, which is lower than the 1.0 threshold (61). The set of predictors accounted for a significant amount of the variance in consumer satisfaction [$R^2 = 0.819$, $F(11, 76) = 26.76$, $p < 0.05$] with skill performance and socialization contributing significantly to the prediction of consumer satisfaction.

The results of the second multiple regression analysis are shown in Table 5. Again, preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, and multicollinearity. The set of predictors accounted for a significant amount of the variance in spectator revisit intention [$R^2 = 0.696$, $F(11, 79) = 14.15$, $p < 0.001$] with skill performance, entertainment, socialization, and ambience contributing significantly to the prediction of revisit intention. The size and direction of the relationships suggest that skill performance is a particularly important predictor of revisit intention (see Table 5).

Table 3. Means and standard deviations of event quality, satisfaction, and revisit intention by gender

	Total		Male		Female		F	p
	M	(SE)	M	(SE)	M	(SE)		
Event Quality								
Skill performance	6.42	1.15	6.22	1.37	6.67	.70	3.42	0.07
Socialization	6.12	1.39	5.83	1.59	6.51	.95	5.09	0.03
Fan interaction	6.11	1.44	6.13	1.47	6.09	1.42	0.02	0.90
Operating time	6.09	1.41	5.94	1.59	6.30	1.12	1.41	0.24
Concession	6.07	1.38	5.98	1.39	6.19	1.37	0.50	0.48
Facility design	6.04	1.39	5.88	1.48	6.26	1.24	1.57	0.21
Entertainment	5.89	1.50	5.50	1.65	6.41	1.09	8.32	0.01
Ambience	5.79	1.82	5.74	1.69	5.86	2.00	0.10	0.75
Staff quality	5.73	1.52	5.43	1.70	6.13	1.14	4.82	0.03
Signage	5.63	1.76	5.50	1.86	5.83	1.62	0.75	0.34
Information	5.49	1.64	5.32	1.72	5.72	1.52	1.23	0.27
Overall satisfaction	6.19	1.19	6.00	1.28	6.45	1.02	2.85	0.10
Revisit intention	5.98	1.32	5.82	1.37	6.20	1.22	1.65	0.21

Note: *p < 0.05; **p < 0.01

Gender difference

The third research question was: *Are there any differences in quality perceptions toward the event, overall event satisfaction, and revisit intention based on the gender of spectators?* Table 3 shows the means and standard deviations for event quality and overall event satisfaction by gender. The differences between male and female service quality perceptions were not found to be distinctly different, in general. For male spectators, the service quality items ranged from a high for skill performance (6.22 ± 1.37) to a low for Information availability (5.32 ± 1.72). For female spectators, a similar trend emerged with the highest-rated factor being skill performance (6.67 ± 0.70) and the lowest-rated factor being Information availability (5.72 ± 1.52). Lastly, overall event satisfaction for the event was rated 6.2 ± 1.19 with female spectators (6.45 ± 1.02) showing a higher level of satisfaction with the event when compared to male (6.00 ± 1.28) spectators. The results of the ANOVA evidenced significant event quality gender group differences in skill performance [$F(1, 88) = 3.419, p < 0.068$], socialization [$F(1, 82) = 5.09, p < 0.027$], staff quality [$F(1, 88) = 4.82, p < 0.038$], and entertainment [$F(1, 84) = 8.32, p < 0.005$]. Overall, female spectators showed more favorable perceptions about event quality than their male counterparts (see Table 3).

Discussion and Implications

The researchers believe that this study fills in some of the informational gaps by providing insights into the characteristics and behavior of spectators who attend martial arts events on their

leisure trips. The current research also identified the important event quality factors that significantly influence spectators' satisfaction and revisit intention, which provide event managers with useful information for developing effective marketing and promotional strategies. Specifically, unique demographic profiles of the research sample provide managers with useful information. Particularly of note, a majority of spectators were Mestizo and highly educated. Additionally, over 97% of the spectators attended the event with family members and/or friends. More than half of the respondents (55%) had TKD experience. Additionally, they had a relatively high level of TKD involvement. While this is a highly specialized study targeted at a very specific population, the information garnered from this work clearly shows that event managers must pay special attention to the demographic profiles of its constituency. While market research is a basic tenant of constructing a marketing plan, this study showed that specialized events like professional martial arts events must leave no stone unturned when conducting that research, as understanding who is coming to your event will help you to maximize resource expenditure and target those that will find your event as an improvement to their quality of life. For example, 97% of the sample from this study attended the event with family or friends. If the event management staff were not aware of this fact, they would not be able to plan for auxiliary elements that would entertain the whole group.

According to the data, the most viable information source for spectators to this event was their coaches (50.3%). As such, it is vital to the continued success of the event to reach out to non-TKD spectators by building an integrated marketing communication protocol in which multiple outlets are utilized

Table 4. Regression analyses examining the relationship between event quality perceptions and satisfaction

Variables (Predictors)	df	F	β	<i>t</i>	<i>p</i>
	11/76	26.76			
Skill performance			0.194*	2.567	0.013
Operating time			0.131	1.352	0.181
Information			0.009	0.111	0.912
Staff quality			0.027	0.328	0.744
Entertainment			0.167	1.895	0.063
Concessions			-0.068	-0.788	0.433
Fan interaction			0.137	1.929	0.058
Socialization			0.385**	3.908	0.000
Ambience			0.167	1.927	0.058
Design			0.005	0.051	0.959
Signage			-0.008	-0.083	0.934

Note: $R^2 = 0.819$; Adjusted $R^2 = 0.789$
 * $p < 0.05$; ** $p < 0.01$

to effectively reach both participants and non-participants. As an example, the WTF needs to create an Internet webpage for the Professional Taekwondo Tour, complete with information that is relevant to regular practitioners (updated rules changes eligibility requirements for various professional and amateur events, etc.) and non-practitioners looking for additional information on the sport, as well as its event schedule and top-tier athletes. Coach and friend word-of-mouth promotion (69.4%) were the most common forms of event information dissemination. Surprisingly, non-traditional means such as the Internet were used to gather information, at a much lower usage rate (24.7%). This lower rate is an indicator that additional resources must be devoted to the improvement and development of available technology as a practical source of information.

Today, the Internet has become a popular marketing tool for many event organizations (2, 6). Gillentine (21) stated that sport organizations are making efforts to incorporate emerging technologies into their marketing strategy. It provides organizations with the opportunity to enhance their marketing strategy by establishing a more direct line of communication with participants, spectators, and supporters. Social Network Sites (SNS) are just one example of the impact the Internet is creating and have emerged as an important marketing tool (37, 54). SNS are attracting more Internet users with greater popularity across broad segments of the Internet (37). Moreover, SNS are dramatically reshaping sports media and the sports world (54). Numerous sports organizations and teams adapted SNS as a tool to develop a strong brand (66). Thus, well-developed websites and SNS (e.g., Twitter and Facebook) can assist event managers and marketers in maintaining better relationships with their spectators, before, during, and after the event.

The results of the multiple regression analysis provided

Table 5. Regression analyses examining the relationship between event quality perceptions and satisfaction

Variables (Predictors)	df	F	β	<i>t</i>	<i>p</i>
	11/76	14.15			
Skill performance			0.281	2.931	0.005
Operating time			0.072	1.352	0.181
Information			-0.129	-1.291	0.201
Staff quality			-0.095	-0.928	0.357
Entertainment			0.304	2.714	0.008
Concessions			-0.003	-0.031	0.975
Fan interaction			0.019	0.217	0.829
Socialization			0.268	3.908	0.000
Ambience			0.167	2.146	0.035
Design			0.001	0.009	0.993
Signage			0.072	0.616	0.540

Note: $R^2 = 0.696$; Adjusted $R^2 = 0.647$
 * $p < 0.05$; ** $p < 0.01$

empirical evidence that event quality is very important in predicting satisfaction (82% of the variance in satisfaction was explained by the event quality factors) and revisit intention (70 % of the variance in revisit intention was explained by the event quality factors). Specifically, skill performance and socialization were found to be very important elements in predicting satisfaction and revisit intention. The findings of this study suggest that entertainment and venue ambience were also important predictors of spectators' revisit intention.

Traditionally, staff quality has long been considered one of the most important service dimensions in both the general service industry (9, 22) and the sport event context (1, 29). Interestingly, staff quality was not found to be a significant predictor of customers' satisfaction and revisit intention in the current study. This might be due in part to the event characteristics of the 2009 World Professional Taekwondo Tour, such as the 'limited opportunity to interact with staff' (e.g., concession area and ticket takers) when compared to those of popular spectator sport events.

Analysis of the service quality items linked to event attendance showed that skill performance and socialization were regarded as the most positive aspects when it came to attending the World Professional Taekwondo Tour. On the contrary, Information was the lowest rated item. This empirical evidence suggests that event spectators showed great concern with both the core product and ancillary products of the event. As such, event organizers should devote ample resources to improving game quality (i.e., securing the most representative talent available) as well as ensuring an atmosphere conducive for the socialization and interaction of event spectators. For example, event managers could provide social/cultural programs (i.e., traditions, ceremonies, and history presentations) and demonstrations (i.e., sparring, board breaking, and team choreography) that will immerse spectators in martial

arts culture and history. In terms of customer satisfaction, the respondents in this study expressed generally high satisfaction with the event, regardless of gender.

We also found that service quality perceptions were significantly influenced by gender. In our research, female customers tended to be more generous in evaluating event quality, particularly, in 'socialization,' 'entertainment,' and 'staff quality' than male customers. As a result, female spectators showed higher levels of satisfaction and revisit intention when compared to male spectators. For male spectators, entertainment and perceived staff quality had the lowest means. Therefore, event managers should develop and execute customized marketing strategies for the different genders. To enhance male customers' satisfaction and increase their future revisit intentions, marketers need to pay close attention to the entertainment aspects of the event and the attitude and behavior of their event staff.

In conclusion, martial arts event managers should offer high quality events for unique fan experiences. Evidence from this study showed that particular attention should be paid to pre-event market research, as well as securing the best talent available (as skill performance was the most highly rated factor for men and women). Events can be successful through the incorporation of setting factors (i.e., ambience, venue, design, and concession), people factors (i.e., staff, guests, and volunteers), and event program factors (i.e., social interaction, entertainment, and information [20]). As mentioned previously, cultural exhibitions, interactive showcases and overall attention to high levels of service quality should increase the appeal of professional martial arts events for both highly experienced practitioners and casual fans.

Limitations and Future Research Directions

Several limitations are acknowledged in the present study. First, the instrument was developed primarily for major spectator sport events, not for a martial arts competition. Further studies would be required to ascertain whether the proposed instrument is equally applicable to other similar events such as the World Professional Taekwondo Tour. Secondly, the sample used for data analysis was domestic in nature. This is a limitation because martial arts are international in nature and collecting data from a largely domestic audience limits the generalizability of the results to more broad audiences. Additionally, a large number of participants (27%) represented a group with high socioeconomic status. Close to 74% of respondents were under 39 years old. This study is one of the first attempts to examine consumer perceptions and satisfaction in the context of professional martial arts events. The findings presented in this

paper serve as a fundamental first step to further studies on understanding martial arts event spectators. In addition to the issues presented in connection with the implications and limitations of the present study, future studies should expand this realm of research to the theoretical relationships between event quality and other consumer variables such as perceived value and destination image by considering involvement and loyalty. Furthermore, social media is one of the fastest growing marketing tools in today's sport business landscape. As such, future research needs to examine the usage of social media among professional TKD event spectators.

In summary, despite the acknowledged limitations of the present study, the current study provides a general picture of spectators at a selected martial arts event to assist managers in establishing and maintaining a competitive edge by diagnosing strengths and weaknesses of the events from the consumer's perspective, thus providing a solid basis for future improvement in the identified weakness areas.

References

- (1) Afthinos Y, Theodorakis ND, Nassis P. Customers' expectations of service in Greek fitness centers: gender, age, type of sport center, and motivation differences. *Managing Service Quality*. 2005;15(3):245-58.
- (2) Auty C. Football fan power and the Internet: Net gains? *Aslib Proceedings*. 2002;54(5):273-79.
- (3) Babikas E, Bienstock CC, Van Scotter JR. Linking perceived quality and customer satisfaction to store traffic and revenue growth. *Decision Sciences*. 2004;35(4):713-37.
- (4) Baker DA, Crompton JL. Quality, satisfaction and behavioral intentions. *Annals of Tourism Research*. 2000;27(3):785-804.
- (5) Bansal HS, Voyer PA. Word-of-mouth processes within a services purchase decision context. *Journal of Service Research*. 2000;3(2):166-77.
- (6) Beech J, Chadwick S, Tapp A. Surfing in the premier league: key issues for football club marketers using the Internet. *Managing Leisure*. 2000;5(2):51-64.
- (7) Bolton RN, Lemon KN. A dynamic model of customers' usage of service: usage as an antecedent and consequence of satisfaction. *Journal of Marketing Research*. 1999;36(2):171-86.
- (8) Brady MK, Knight GA, Cronin JJ, Tomas G, Hult M, Keillor BD. Removing the contextual lens: a multinational, multi-setting comparison of service evaluation models. *Journal of Retailing*.

- 2005;81(3):215-30.
- (9) Brady MK, Cronin JJ. Some new thoughts on conceptualizing perceived service quality: a hierarchical approach. *Journal of Marketing*. 2001;65(3):34-49.
- (10) Buda R, Sengupta K, Elsayed-Elkhouly, S. Employee and organizational perspectives of service quality: a cross-cultural study in Kuwait, United States and Saudi Arabia. *International Journal of Management*. 2006;23(3):430-35.
- (11) Carlson J, O'Cass A. Exploring the relationships between E-service quality, satisfaction, attitudes and behaviours in content-driven E-service web sites. *Journal of Services Marketing*. 2010;24(2):112-27.
- (12) Chalip L, Green BC, Hill B. Effects of event media on destination image and intention to visit. *Journal of Sport Management*. 2003;17(3):214-34.
- (13) Chalip L, Green BC, Vander VL. The effects of polysemic structures on Olympic viewing. *International Journal of Sports Marketing & Sponsorship*. 2000;2(1):39-57.
- (14) Cole ST, Illum SF. Examining the mediating role of festival visitors' satisfaction in the relationship between service quality and behavioral intentions. *Journal of Vacation Marketing*. 2006;12(2):160-73.
- (15) Cronin JJ, Brady MK, Hult G, Tomas M. Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environment. *Journal of Retailing*. 2000;76(2):193-218.
- (16) Cronin JJ, Taylor SA. Measuring service quality: a reexamination and extension. *Journal of Marketing*. 1992;56(3):55-68.
- (17) Dagger TS, Sweeney JC. Service quality attribute weights: How do novice and longer-term customers construct service quality performance? *Journal of Service Research*. 2007;10(1):22-42.
- (18) Dagger TS, Sweeney JC, Johnson LW. A hierarchical model of health service quality: scale development and investigation of an integrated model. *Journal of Service Research*. 2007;10(2):123-42.
- (19) Fox News Latino [Internet]. Mexican household income falls 12 pct between 2008 and 2010. [updated 2011 July 15; cited 2014 May 19]. Available from: <http://latino.foxnews.com/latino/espanol/2011/07/15/mexican-household-income-falls-12-pct-between-2008-and-2010/>.
- (20) Getz D. Event management and event tourism. 2nd ed. New York: Cognizant; 2005.
- (21) Gillentine A. Developing an Internet philosophy. *Sport Marketing Quarterly*. 2003;12(1):63-64.
- (22) Grace D, O'Cass A. Examining service experiences and post-consumption evaluations. *Journal of Services Marketing*. 2004;18(6):450-61.
- (23) Graham S, Neirotti LD, Goldblatt JJ. The ultimate guide to sport marketing. 2nd ed. New York: McGraw-Hill; 2001.
- (24) Greenwell TC, Fink JS, Pastore DL. Perceptions of the service experience: using demographic and psychographic variables to identify customer segments. *Sport Marketing Quarterly*. 2002;11(4):233-41.
- (25) Gregory S. [Internet] Sport: extreme fighting: it's ladies fight. TIME Magazine. [updated 2007 July 19; cited 2014 June 30]. Available from: <http://www.time.com/time/magazine/article/0,9171,1645157,00.html>.
- (26) Hair JF, Black, W, Babin B, Anderson RE, Tatham RL. Multivariate data analysis. 6th ed. Upper Saddle River: Prentice Hall; 2005.
- (27) Hansemark OC, Albinsson M. Customer satisfaction and retention: the experiences of individual employees. *Managing Service Quality*. 2004;14(1):40-57.
- (28) Hill B, Green BC. Repeat attendance as a function of involvement, loyalty, and the sportscape across three football contexts. *Sport Management Review*. 2000;3(2):145-62.
- (29) Kelly SW, Turley LW. Consumer perceptions of service quality attributes at sporting events. *Journal of Business Research*. 2001;54(2):161-66.
- (30) Kim TH, Ko YJ, Park CM. The influence of event quality on revisit intention: gender difference and segmentation strategy. *Managing Service Quality*. 2013;23(3):205-24.
- (31) Kline RB. Principles and practice of structural equation modeling. 2nd edition. New York: Guilford; 2005.
- (32) Ko YJ. Martial arts marketing: putting the customer first. *Journal of Asian Martial Arts*. 2003; 12(2): 9-15.
- (33) Ko YJ, Kim YK, Kim MK, Lee JH. The role of involvement and identification on quality perception and satisfaction: a case of US Taekwondo Open. *Asia Pacific Journal of Marketing and Logistics*. 2010;22(1):25-39.
- (34) Ko YJ, Pastore DL. Current issues and conceptualizations of service quality in the recreation sport industry. *Sport Marketing Quarterly*. 2004;13(3):158-66.
- (35) Ko YJ, Yang JB. The globalization of martial arts: the change of rules for new markets. *Journal of Asian Martial Arts*. 2008;17(4):8-19.
- (36) Ko YJ, Zhang JJ, Cattani K, Pastore DL. Assessment of event quality of major spectator sports. *Managing*

- Service Quality*. 2011;21(3):304-22.
- (37) Kwon HH, Ko YJ. Validation of single item measure of scale of service quality for recreational sport (SSQRS). *International Journal of Sport Management*. 2006;7(1):112-22.
- (38) Lampe C, Ellison NB, Steinfield C. Changes in use and perceptions of Facebook. Proceedings of the 2008 ACM Conference on Computer Supported Cooperative Work. 2008; 721-30.
- (39) Lassar WM, Manolis C, Winsor RD. Service quality perspectives and satisfaction in private banking. *Journal of Services Marketing*. 2000;14(3):244-71.
- (40) Lee J, Beeler C. The relationships among quality, satisfaction, and future intention for first-time and repeat visitors in a festival setting. *Event Management*. 2007;10(4):197-208.
- (41) Lee J, Kim H, Ko YJ, Sagas M. The influence of service quality on satisfaction and revisit intention: a gender segmentation strategy. *Sport Management Review*. 2011;14(1):54-63.
- (42) McCarty JA, Shrum LJ. The role of personal values and demographics in predicting television viewing behavior: implications for theory and application. *Journal of Advertising*. 1993;22(4):77-97.
- (43) McDaniel S. An exploration of audience demographics, personal values, and lifestyle: influences on viewing network coverage of the 1996 Summer Olympic Games. *Journal of Sport Management*. 2002;16(2):117-31.
- (44) McDonald MA, Howland W. Health and fitness industry. In: Masteralexis LP, Barr CA, Hums MA, editors. Principles and practice of sport management. Gaithersburg (MD): Aspen; 1998. p. 431-51.
- (45) McDonald MA, Sutton WA, Milne GR. TEAMQUAL: Measuring service quality in professional sports. *Sport Marketing Quarterly*. 1995;4(2):9-15.
- (46) McDougall GHG, Levesque T. Customer satisfaction with services: putting perceived value into the equation: an empirical examination. *Journal of Services Marketing*. 2000;14(5):392-410.
- (47) Murray KB. A test of services marketing theory: consumer information acquisition activities. *Journal of Marketing*. 1991;55(1):10-25.
- (48) Murray D, Howat G. The relationships among service quality, value, satisfaction, and future intentions of customers at an Australian sports and leisure center. *Sport Management Review*. 2002;5(1):25-43.
- (49) Nunnally JC, Bernstein IH. Psychometric theory. 3rd ed. New York: McGraw-Hill; 1994.
- (50) Oliver RL. Satisfaction: a behavioral perspective on the consumer. New York: McGraw-Hill; 1997.
- (51) Parasuraman A, Zeithaml VA, Berry LL. SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perception of Service Quality. *Journal of Retailing*. 1988;64(1):12-40.
- (52) Patterson PG, Spreng RA. Modeling the relationship between perceived value, satisfaction and repurchase intentions in a business-to-business, services context: an empirical examination. *International Journal of Service Industry Management*. 1997;8(5):414-34.
- (53) Petrick JF. The roles of quality, value, and satisfaction in predicting cruise passengers' behavioral intentions. *Journal of Travel Research*. 2004;42(4):397-407.
- (54) Rust RT, Oliver RL. Service quality: insights and managerial implications from the frontier. In: Rust RT, Oliver RL, editors. Service quality: new directions in theory and practice. Thousand Oaks: Sage; 1994. p. 1-19.
- (55) Sanderson J. Framing Tiger's troubles: comparing traditional and social media. *International Journal of Sports Communication*. 2010;3(4):438-53.
- (56) Shonk DJ, Chelladurai P. Service quality, satisfaction, and intent to return in event sport tourism. *Journal of Sport Management*. 2008;22(5):587-602.
- (57) Snipes RL, Thompson NF, Oswald, S. Gender bias in customer evaluations of service quality: an empirical investigation. *Journal of Service Marketing*. 2006;20(4): 274-84.
- (58) Sport Business Research Network [Internet]. Market research results. Sport Business Research Network; [updated on 2008 November 22; retrieved from: <http://www.sbrnet.com/research.asp?subRID=259>].
- (59) Sport & Fitness Industry Association [Internet]. Martial arts participation report 2012; [updated 2013 June 23; retrieved from: http://www.sfia.org/reports/67_Martial-Arts-Participation-Report-2012].
- (60) Stum DL, Thiry A. Building customer loyalty. *Training and Development Journal*. 1991;45(4):34-36.
- (61) Tabachnick BG, Fidell LS. Using multivariate statistics. 5th ed. New York (NY); Pearson; 2006.
- (62) Theodorakis N, Kambitsis C, Laios A, Koustelios A. Relationship between measures of service quality and satisfaction in professional sports. *Managing Service Quality*. 2001;11(6):431-38.
- (63) Tian-Cole S, Crompton JL, Willson VL. An empirical investigation of the relationships between service quality, satisfaction and behavioral intentions among visitors to a wildlife refuge. *Journal of Leisure Research*. 2002;34(1):1-24.
- (64) Tsuji Y, Bennett G, Zhang JJ. Consumer satisfaction with

- action sports event. *Sport Marketing Quarterly*. 2007;16(4):199-208.
- (65) Ultimate Fighting Championship [Internet]. UFC and Spike TV Announce Continued Partnership. UFC; [updated 2006 March 22; cited 2008 May 23]. Available from: <http://www.ufc.com/index.cfm?fa=news.detail&gid=2369>.
- (66) Wakefield KL, Blodgett JG. Customer response to intangible and tangible service factors. *Psychology and Marketing*. 1999;16(1):51-68.
- (67) Wallace L, Wilson J, Miloch K. Sporting Facebook: a case study with the national football league. 2011 North American Society for Sport Management Conference (NASSM 2011); 2011 [cited 2011 June 30]. Available from: http://www.nassm.com/files/conf_abstracts/2011-101.pdf.
- (68) Wenner LA, Gantz W. The audience experience with sports on television. In: Wenner, LA, editor. *Media, sports, & society*. Newbury Park, CA: Sage Publications; 1989. p. 241-69.
- (69) World Taekwondo Federation [Internet]. WTF news; 1989 [updated 2011 February 16; cited 2014 June 30]. Available from: http://www.wtf.org/wtf_eng/main/main_eng.html.
- (70) Zeithaml VA, Berry LL, Parasuraman A. The behavioral consequences of service quality. *Journal of Marketing*. 1996;60(2):31-46.
- (71) Zeithaml VA., Bitner MJ, Gremler DD. *Service marketing: integrating customer focus across the firm*. 4th ed. New York: McGraw-Hill/Irwin; 2006.

Appendix

Single Items of Event Quality, Satisfaction, and Revisit Intention

The tournament offers the excellent competition that I want.
It is easy to get up-to-date and relevant information on the tournament and players.
The operating hours and game schedule are convenient.
The additional entertainment has excellent quality.
The tournament's concessions have excellent quality.
I am impressed with staff of the tournament.
My interaction with other fans is favorable.
My social interaction in the tournament is very positive.
I like the ambience of the facility.
The signage of the facility is excellent.
The design of the facility is excellent.
My experience of the event is favorable.
I think I did the right thing when I decided to participate in this tournament.
I am satisfied with my decision to participate in this championship.
Based on all of my experience in this tournament, I feel very satisfied.
I will continue to participate in this championship.
I will probably participate in this championship again.
If someone asked me, I would say that it is likely that I'll participate in this championship again.
