Service Quality and Satisfaction Perspectives at the 2011 International Amateur Athletic Federation (IAAF) World Championships

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Abstract

The purpose of this exploratory study was to identify and analyze the factors that contribute to perceived service quality, user satisfaction, and behavioral intention in covering mega-sporting events at the Main Media Center for the International Amateur Athletic Federation (IAAF) Track and Field World Championships. The data were collected through a survey that was administered to users of the media center during the 2011 IAAF World Championship. The results suggested that various service aspects (i.e., Transportation, News press, Convenience stores, Promotions, Volunteers, and Technology service) had significant impact on the media personnel’s overall satisfaction. This study provides useful information on how to improve professionalism and service quality in media facilities at sporting events from the user satisfaction point of view.

Key Words: track and field, media center

Introduction

Sports and related media coverage captivate the attention of millions worldwide. Mass media has transformed much of the environment in which sports are played and conducted (Pedersen, Miloch, & Laucella, 2007). Rowe (2009) stated that sports and the mass media have developed an inseparable relationship in American society over last century. Sports media serves secondary roles in addition to delivering the sport experience. For example, the media reaches audiences through communicating social values, patterns, trends and fashion, lifestyles, aesthetic elements, and consumer related products (Leonard, 1980; Rowe, 2009).

Audience participation in sports tends to be indirect and confined to the channels provided by the media. The television (TV) has been and is expected to be the most popular source of media for sports. Due to the increasing importance of the media in sports, Coakley (2005) and Jhally (1989) argued that some sports have changed rules, schedules, packaging, and presentation methods in order to accommodate more TV broadcasting. In order to maintain audiences’ interest in broadcast sports, it is crucial for the media to provide lively, vivid coverage of events. Therefore, media centers are strategically important to many sport events. The coverage of mega-sporting events such as World Cup soccer and the Olympics exerts significant financial and economic influence on many different countries simultaneously through mass media (Barget & Gouguet, 2012).

Unlike conventional sports leagues and athletic events, mega-sporting events incorporate the media as an integral part of the event. From the design of the athletic arena or stadium onward, plans for press centers and other media-facilities are incorporated and implemented. The size and operation of the press center is vital to media performance and overall satisfaction, therefore. For example, the Guangzhou Asian Games Broadcasting Company (GAB) was officially built to provide required services and facilities for the authorized broadcasters and members of the media (“Guangzhou Asian Games,” 2009). Media broadcasting publicizes sports and promotes interest in game attendance; socializes people into the role of spectators, nurtures interest in game attendance, and serves as a vehicle through which people get the information needed to identify with athletes and teams and subsequently become committed fans (Coakley, 2005; Lever & Wheeler, 1984; Zhang, Pease, & Smith, 1998). The Main Media Center (MMC) at the 2011 IAAF World Championships, in particular, served an additional role of increasing interest in what has been traditionally a sport with limited popularity in non-Olympic years.

The International Amateur Athletic Federation was founded as the world governing body for the sport of track and field athletics in 1912 by 17 national athletic federations who realized the need for a governing authority. With regard to administration, the number of affiliated federations grew dramatically, from 17 in 1912 to 213 in 2008. In 2001, the IAAF changed its name to The International Association of Athletics Federations (IAAF). The IAAF World Championships in Athletics is referred to as the world’s third largest sporting event in conjunction with the World Cup and Olympics. The event was founded in 1983 and has been held every two years since 1991 (IAAF, 2012). The IAAF has successfully led the worldwide sports movement in the development and application of an extensive anti-doping media campaign (IAAF, 2012).

Service Quality in the Main Media Center

As the sports industry becomes more global and competitive, the success of a sports organization depends on the degree to which they can satisfy their customers with quality service. Service quality has been defined as “the consumer’s overall impression of the relative inferiority/superiority of the organization and its service” (Bitner & Hubbert, 1994, p. 77). Service quality in the recreational sports industry is evaluated by the customer’s overall impression about the service delivery systems, the service performance, and the whole consumption experience (Ko & Pastore, 2004). To date, service quality is recognized as one of the primary topics in service management and marketing (Gronroos, 1984; Murry & Howat, 2002). With high-standard service quality, the customer would stay with an organization longer, buy additional services, and recommend the organization to other consumers (McDonald & Howland, 1998; Zeithaml, Berry, & Parasuraman, 1996). Thus, service quality is one of the most important elements that influence customer retention and the long-term profitability of a sports organization (Stum & Thiry, 1991).

Service quality has been studied in various contexts including spectator sports (e.g., Kelly & Turley, 2001; Theodorakis & Alexandris, 2008; Wakefield, Blodgett, & Sloan, 1996),
recreational sports (Howat, Absher, Crilley, & Milne, 1996; Ko & Pastore, 2004), and sport/fitness centers (Chelladurai, Scott, & Haywood-Farmer, 1987; Kim & Kim, 1995; Lam, Zhang, & Jensen, 2005). Parasuraman, Zeithaml, and Berry (1988) developed the Service Quality Scale (SERVQUAL) that takes into account the customers’ perception of relative importance of service attributes. The following are the five key dimensions of SERVQUAL, which included 22 items: (a) tangibles (e.g., physical facilities, equipment, and appearance); (b) reliability (e.g., ability to perform the promised service); (c) responsiveness (e.g., willingness to help clients); (d) assurance (e.g., knowledge, competence, and courtesy of employees); and (e) empathy (e.g., caring, access, communication, and understanding). They found that ‘reliability’ was the most important contributor to service quality while ‘tangibles’ was the least important. However, Grönroos (1984) criticized SERVQUAL that only focused on the service-delivery process. Grönroos (1984) defined two aspects of customer service quality: technical quality and functional quality. Technical quality has been explained as “what” service is provided between the service provider and the customer. Functional quality is concerned with “how” the service is provided to a consumer.

Kim and Kim (1995) developed 45 items to assess service quality in sport centers in South Korea. They introduced an 11-factor, 33-item scale called Quality Excellence of Sports Centres (QUEST). The 11 dimensions included ambience, employee attitude, reliability, information, programming, personal consideration, privilege, price, ease of mind, stimulation, and convenience. Howat et al. (1996) developed the Centre for Environment and Recreation Management-Custom Service Quality (CERM-CSQ) scale to measure four dimensions of service qualities. The four dimensions included the following: (a) Core service (e.g., program information, range of activities, facility comfort, value for money, and quality equipment); (b) Staff quality (e.g., staff responsiveness, staff knowledge, and officials); (c) General facility (e.g., safe parking, and facility cleanliness); and (d) Secondary services (e.g., food and drink, and child services). Chelladurai et al. (1987) identified five dimensions of fitness services, which were measured by the Scale of Attributes of Fitness Services (SAFS). The SAFS consisted of 30 items in five dimensions: professional, consumer, peripheral, facilitating goods, and goods/services. Lam et al. (2005) examined the variables that affect service quality in health-fitness clubs. Researchers developed the Service Quality Assessment Scale (SQAS) that consists of six dimensions: Staff, Program, Locker Room, Physical Facility, Workout Facility, and Child Care. These six dimensions were grouped under three higher-order constructs (i.e., Personal, Program, and Facility). These constructs are most likely to be used to ascertain consumer perception of service quality in many previous studies.

Service quality refers to the quality of services provided by the MMC for members of the media present at the event. Services, aside from core products, often serve as major factors in increasing users’ satisfaction as well as their willingness to make recommendations to others and future purchase intention. Although sporting events serve the core production function of a professional team, another crucial function of the team is to provide game-supporting programs (Brooks, 1994; Buell, 1984; Stotlar, 1989). Several investigators concluded that part of spectator satisfaction is derived from these support programs (Hansen & Gauthier, 1989; Noll, 1974, 1991; Schofield, 1983). In order to satisfy customers’ needs, it is crucial to ensure the provision of satisfactory services as part of the marketing strategy. The users or customers of media centers are members of the media. Ensuring a good working environment for media center users by providing high-quality services contributes to improved satisfaction. This in turn, leads to providing favorable media coverage.

**MMC Service Quality and Satisfaction**

The provision of high quality services translates into customer satisfaction. Stoner and Wankel (1989) pointed out that customer satisfaction, a pleasant feeling derived from fulfilled expectation or unexpected positive surprise, is an important part of product quality. Oliver (1981) defined satisfaction as “the summary psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the consumer’s prior feelings about the consumption experience” (p. 27).

The concept of customer satisfaction has been a focus of academics and practitioners in light of the fact that it is related to the primary source of most organizations’ revenue. The primary goal of most service companies today is to enhance customer satisfaction. In a broad sense, customer satisfaction has a close relationship with member loyalty. The behavioral aspect of customer loyalty is the repurchase intention of a product or service. Increasing customer satisfaction and customer retention positively impacts profits, word-of-mouth advertising, and lowers marketing expenditures (Reichheld & Sasser, 1990). Thus, previous studies often found a relationship between customer satisfaction and repurchase intention. In the current study, satisfaction is based upon customers’ previous experience and cumulative evaluations of the MMC, which is a key determinant of customer retention, positive world-of-mouth advertising, and sales (Bitner, 1990; Cronin & Taylor, 1992; Gotlieb, Grewal, & Brown, 1994). Overall, the success of a sport program depends on the extent to which it can satisfy the customers with quality service. High levels of customer satisfaction would be helpful in preventing or reducing customer attritions (Ko & Pastore, 2004).

There is a dearth of scholarly research examining the relationship between media-related facilities and service quality at media centers for mega-sporting events. The relative importance of the operational environments of media-related facilities has been neglected, therefore. The purpose of this exploratory study was to examine the relationship among service quality, user satisfaction, and behavioral intentions for word of mouth among the users at the MMC for the 2011 IAAF World Championships (see Figure 1).

This exploratory study intends to provide useful information on how media facilities are operated, and can help provide basic data for improving the overall service quality of related experiences. Since the importance of media-related services has been emphasized from diverse perspectives, the assessment of the quality of services provided by the media facilities will provide further data and assistance for concerned parties to improve the quality of their services and media contents.
Method

Participants and Procedure

The data were collected through a survey to users of the media center during the 2011 IAAF World Championships in Daegu, Korea. After approval was obtained from the institutional review board involving human subjects, the researchers contacted the media center representative to request for permission and assistance with the data collection. The participants consisted of reporters, broadcasters, broadcasting technicians, producers, and other members of the media authorized to access the MMC as members of the media of participating countries. A total of 195 surveys were collected using convenience sampling. The questionnaires were distributed within the media center during the Championships.

Instrument

The questionnaire consisted of four sections: (1) service quality, (2) satisfaction, (3) behavioral intention (word-of-mouth), and (4) demographics. To measure main media center service quality (25 items), items were derived from the SERVQUAL (Parasuraman et al., 1988). The original SERVQUAL items in Parasuraman et al.’s study had an internal consistency of .85. This study also incorporated the measuring criteria of the SERVQUAL, and modified its design to suit the characteristics of media centers based on data derived and integrated from various sources. The modified factors of service quality of Cronbach’s alpha ranged from .70 to .44 (see Table 1). To measure overall satisfaction, Oliver’s satisfaction items (1997) were modified. A sample item included was “I am satisfied with my decision to visit MMC.” Cronbach’s alpha was .71 in the current study. The overall items were anchored by a 5-point Likert scale, ranging from 1 (strongly disagree), to 5 (strongly agree). To ensure reliability and validity of the scales in the current study, several examinations were performed including assessment of Cronbach’s alpha values and factor correlation values. Additional questions in multiple choice or fill-in-the-blank format were included in a questionnaire with nine demographic items (i.e., gender, age, and home country).

Data Analysis

Descriptive statistics and internal consistency measures (Cronbach's alpha) were computed using SPSS 19.0. Factor correlations were examined to check discriminant validity. Using two multiple regression analyses, the respondents’ overall satisfaction levels as well as their intention to recommend to others were predicted using independent variables described in the “Instrument” section. To minimize type I error when more than one regression is conducted on the same variables, we considered alpha adjustment (Hair, Black, Babin, & Anderson, 2010).

Results

Of the respondents (n = 195), 61.5% (n = 100) were male, 38.5% (n = 95) were female, and the majority were between 22 and 40-years old (59.5%). Approximately 23% of the respondents had more than 10 years of working experience. Members of the media from 24 countries participated in the survey.

The overall results revealed three key findings. First, the overall assessment of psychometric properties of scale was acceptable with room for improvement. Alpha values were close to or above .70 in seven variables out of 11. One variable had alpha value below .50, which needs to be reexamined in future studies (see Table 1). This variable, Transportation, was included in the data analysis due to its uniqueness in the topic area.

Table 1. Mean, Standard Deviation, and Cronbach's Alphas

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Accessibility</td>
<td>3.69</td>
<td>.66</td>
<td>.61</td>
</tr>
<tr>
<td>2. Transportation</td>
<td>3.58</td>
<td>.67</td>
<td>.44</td>
</tr>
<tr>
<td>3. News press</td>
<td>3.50</td>
<td>.65</td>
<td>.57</td>
</tr>
<tr>
<td>4. Information service</td>
<td>3.29</td>
<td>.82</td>
<td>.58</td>
</tr>
<tr>
<td>5. Convenience stores</td>
<td>3.19</td>
<td>.93</td>
<td>.69</td>
</tr>
<tr>
<td>6. Promotions</td>
<td>3.39</td>
<td>.69</td>
<td>.70</td>
</tr>
<tr>
<td>7. Volunteers</td>
<td>3.54</td>
<td>.72</td>
<td>.70</td>
</tr>
<tr>
<td>8. Facility</td>
<td>3.43</td>
<td>.80</td>
<td>.51</td>
</tr>
<tr>
<td>9. Technology service</td>
<td>3.39</td>
<td>.69</td>
<td>.52</td>
</tr>
<tr>
<td>10. Satisfaction</td>
<td>3.47</td>
<td>.61</td>
<td>.71</td>
</tr>
<tr>
<td>11. Behavioral intention</td>
<td>3.46</td>
<td>.73</td>
<td>.78</td>
</tr>
</tbody>
</table>

Note. All correlations are significant at the .05 level (2-tailed).

Based on Kline’s (2010) suggested criteria, discriminant validity was established among the overall factors in that all factor correlations were below .85 (see Table 2).
The second major finding was revealed in the regression analysis on the participants’ overall satisfaction. Six independent variables (i.e., Transportation, News press, Convenience stores, Promotions, Volunteers, and Technology service) were statistically significant in predicting media personnel’s overall satisfaction at the event (48% of the variance explained; see Table 3).

### Table 3. Multiple Regression on Participant’s Satisfaction

<table>
<thead>
<tr>
<th>Variables</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
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<tr>
<td></td>
<td>Beta</td>
<td></td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>Accessibility</td>
<td>-0.070</td>
<td>-1.155</td>
<td>0.249</td>
<td>0.774</td>
</tr>
<tr>
<td>Transportation*</td>
<td>-0.157</td>
<td>-2.588</td>
<td>0.010</td>
<td>0.784</td>
</tr>
<tr>
<td>News Press*</td>
<td>0.211</td>
<td>3.553</td>
<td>0.000</td>
<td>0.815</td>
</tr>
<tr>
<td>Information Service</td>
<td>-0.400</td>
<td>-0.709</td>
<td>0.479</td>
<td>0.887</td>
</tr>
<tr>
<td>Convenience Stores*</td>
<td>0.242</td>
<td>4.124</td>
<td>0.000</td>
<td>0.834</td>
</tr>
<tr>
<td>Promotions*</td>
<td>0.384</td>
<td>5.736</td>
<td>0.000</td>
<td>0.642</td>
</tr>
<tr>
<td>Volunteer*</td>
<td>0.128</td>
<td>2.190</td>
<td>0.030</td>
<td>0.848</td>
</tr>
<tr>
<td>Technology Service*</td>
<td>0.182</td>
<td>2.925</td>
<td>0.004</td>
<td>0.746</td>
</tr>
<tr>
<td>Facility</td>
<td>0.033</td>
<td>0.559</td>
<td>0.577</td>
<td>0.816</td>
</tr>
</tbody>
</table>

Note. R square = .479; * indicates statistical significance at the .025 level (alpha adjusted).

The second regression analysis on the participants’ behavioral intention for word of mouth revealed that two independent variables (i.e., News press, Volunteers, and Technology service) had statistically significant influence on the dependent variable, explaining 25% of the variance (see Table 4).

### Table 4. Multiple Regression on Participant’s Behavioral Intention

<table>
<thead>
<tr>
<th>Variables</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td></td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>Accessibility</td>
<td>0.032</td>
<td>0.439</td>
<td>0.661</td>
<td>0.774</td>
</tr>
<tr>
<td>Transportation</td>
<td>-0.060</td>
<td>-0.826</td>
<td>0.410</td>
<td>0.784</td>
</tr>
<tr>
<td>News Press*</td>
<td>0.235</td>
<td>3.295</td>
<td>0.001</td>
<td>0.815</td>
</tr>
<tr>
<td>Information Service</td>
<td>0.116</td>
<td>1.700</td>
<td>0.091</td>
<td>0.887</td>
</tr>
<tr>
<td>Convenience Stores</td>
<td>0.004</td>
<td>0.051</td>
<td>0.959</td>
<td>0.834</td>
</tr>
<tr>
<td>Promotions</td>
<td>0.090</td>
<td>1.121</td>
<td>0.264</td>
<td>0.642</td>
</tr>
<tr>
<td>Volunteer*</td>
<td>0.199</td>
<td>2.842</td>
<td>0.005</td>
<td>0.848</td>
</tr>
<tr>
<td>Technology Service</td>
<td>0.164</td>
<td>2.203</td>
<td>0.029</td>
<td>0.746</td>
</tr>
<tr>
<td>Facility</td>
<td>0.052</td>
<td>0.725</td>
<td>0.469</td>
<td>0.816</td>
</tr>
</tbody>
</table>

Note. R square = .251; * indicates statistical significance at the .025 level (alpha adjusted).

Discussion

While spectator venues such as stadiums and arenas have typically been given a great deal of publicity, coverage and recognition within the sport media pertaining to the MMC used for mega-events, warrants increased attention by event organizers. Because the MMC was neither the competitive venue nor the primary practice area for most sports, it was sometimes overlooked from a facilities and operations perspective. The necessity and value of studying how media centers and related service areas are operated can be found in the potential effects that they have on inducing worldwide consumption of sporting events (Zhang & Smith, 1997). This study represents an initial exploration to identify and analyze the factors that contribute to perceived service quality, user satisfaction, and behavioral intention in covering mega-sporting events at the Main Media Center. Media-related facilities and services that ensure user satisfaction are important factors impacting coverage of mega-sporting events. Previous studies (Grönroos, 1984; Ko & Pastore, 2004; Murry & Howat, 2002; Stum & Thiry, 1991) noted that service quality in the sports industry is evaluated by the customers’ overall impressions about the service delivery systems, the service performance, and the whole consumption experience.

The overall findings of the current study are comparable to the existing literature. First, the current study revealed that six factors (i.e., Transportation, News press, Convenience stores, Promotions, Volunteers, and Technology service) had significant impact on the prediction of media personnel’s overall satisfaction at the event. The second major finding of the current study was the regression analysis of the participants’ behavioral intention for word of mouth recommendations. Three independent factors (i.e., News press, Volunteers, and Technology service) had statistically
significant influence on the media personnel’s behavioral intention for word of mouth recommendations. Transportation is deemed to be an important factor for MMC user satisfaction. This finding implies that providing convenient transportation services (e.g., shuttle bus service) from MMC to media villages should not be neglected. In the case of news press, MMC staff should consider how media information (e.g., the player information, game rules, game results, etc.) is disseminated in a timely manner to MMC users. With regard to the convenience stores, easy accessibility and availability to supporting services (e.g., bank, post office, grocery store, souvenier store, fast-food restaurant) seem to be an important factor that increases MMC user satisfaction.

This finding is consistent with previous studies (Howat et al., 1996; Kim & Kim, 1995; Parasuraman et al., 1988) that volunteers’ courtesy/attitudes is a primary concern at the MMC. In addition, this finding supports the Grönroos’s (1984) functional quality concept that explained how services such as courtesy and friendliness of employees and efficient service is delivered to consumers. Consistent with Grönroos’s finding (1984), technical quality that involves what a customer actually receives from services is another important factor for MMC users (i.e., Transportation, News press, Convenience stores, and Technology service). Kettinger and Lee (1994) reported similar results in explaining that information services (i.e., Technology service) are one of the salient predictors of user satisfaction. This type of finding would provide MMC staff with a roadmap to help prepare for new technology such as high speed Wi-Fi, LED monitor, Helicam, etc., for MMC users.

This study is useful for sport event organizers in gaining a clear understanding of how/what service factors need to be provided to MMC users. As the financial stakes of sport events continue to increase, sport event organizers need to continue seeking opportunities to attract additional media coverage and attention. The difference between a successful MMC and an inefficient operation can be tied to the functional space within the facility and how efficiently the MMC is operated. Broadcasting is an indispensable medium of sports consumption and a channel of information. This study contributes to the field of sport media and event management by developing a better understanding of sport media users’ participatory patterns and future behavioral intentions. From a theoretical standpoint, the key variables in user behavior (i.e., Transportation, News press, Convenience stores, Promotions, and Volunteers) play an important role in quality perceptions of the MMC. It is important to efficiently identify the needs and expectations of users or customers and formulate strategies to satisfy them in order to improve work quality and productivity (Brooks, 1994; Buell, 1984; Mullin, Hardy, & Sutton, 2007; Stotlar, 1989). Therefore, there is a significant need for studies to investigate these user or customer satisfaction levels so as to improve the quality of services provided by media-related facilities. Media management at sporting events, in other words, requires a strategic marketing approach. There is an extremely limited amount of research on sport facilities and the research is even more scarce in the area of MMC, in particular. Thus, the information on how the media facilities are operated can help provide basic information for improving the overall quality of future events like the IAAF World Championships and related experiences. The data presented in this study demonstrated the importance of budgetary support for the required MMC resources.

Managerial Implications
The findings of this study support the significance of MMC at the sport event. There are several practical applications for event organizers from this study. First, this study provides some descriptive data and information about service quality and satisfaction of users at the MMC for the 2011 IAAF World Championships. Sport event organizers should identify the necessity and value of these findings indicating how media centers and related services play an important role in the operation of sporting events. Second, we believe that this type of research findings can be useful when sport event organizers have a plan to improve service qualities in MMC. Before evaluating, renovating and/or constructing a MMC, it is important that the individuals involved in making the decisions have a clear understanding of the service objectives they are trying to achieve and the factors that contribute to an effective sport event media center.

Limitations and Future Research
The present investigation contained several limitations that need to be addressed as they might have affected the results of this exploratory study. First, the sample population targeted in this study was restricted to a single event, and the small sample size decreased the statistical power in this study. Collection of a sample from a single sport event might raise a concern about limited generalizability. Future research using a broader sample of MMCs would increase the generalizability of the findings with a better chance for replication of the research in other sport event settings. Second, a systematic study investigating the service quality of MMC is absent from the literature. Future research should identify the construct of service quality for MMCs and develop the scale of service quality associated with MMCs.

Conclusion
Mega-event organizational structure should be considered, and service quality of media center factors need to be developed that can influence current or future users and customers of events. Increase in satisfaction among the members of MMC in mega events can be successful through the incorporation of the enhanced service quality in the following areas: Transportation, News press, Convenience stores, Promotions, Volunteers, and Technology service. A high level of service quality of media centers is important in maintaining successful and profitable events. As media service providers, media members are more likely to provide essential quality coverage of the games/event when they are satisfied with the facilities and the overall services. Such satisfaction, in turn, will contribute to the success of the mega events and generate the greater integration of all participating countries.

References