

# Behavioral intentions, satisfaction and perceived quality of the spectators of the 2017 Asian Men's U23 Volleyball Championship

## Intenciones de comportamiento, satisfacción y calidad percibida de los espectadores del Campeonato Asiático de Voleibol Masculino Sub-23 de 2017

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**Abstract:** The aim of this study was to analyze behavioral intentions, satisfaction and perceived quality of the spectators of the 2017 Asian Men's U23 Volleyball Championship. The sample was composed of 351 spectators of the event. The instrument used was a reliable questionnaire with five sub-questionnaires about service quality, main product quality, service satisfaction, game satisfaction, and behavioral intentions. The statistical analysis was based on structural equations and it was carried out with the software WarpPLS version 6. The quality of services had a significant effect on service satisfaction ( $\beta=0.504$ ,  $P<0.001$ ). The core product quality had a significant effect on game satisfaction ( $\beta=0.658$ ,  $P<0.001$ ). Also, the game satisfaction had a significant effect on behavioral intentions ( $\beta=0.514$ ,  $P<0.001$ ). However, the effect of service satisfaction on behavioral intentions was not significant. Therefore, it is recommendable that the organizers of mega sport events consider these results in order to improve the behavioral intentions, satisfaction and perceived quality of the spectators.

**Keywords:** Behavioral intentions; satisfaction; perceived quality; volleyball.

**Resumen:** El objetivo de este estudio fue analizar las intenciones de comportamiento, la satisfacción y la calidad percibida de los espectadores del Campeonato Asiático de Voleibol Masculino Sub-23 de 2017. La muestra estuvo compuesta por 351 espectadores del evento. El instrumento utilizado fue un cuestionario fiable formado por cinco sub-cuestionarios sobre calidad del servicio, calidad del producto principal, satisfacción con el servicio, satisfacción con el juego e intenciones de comportamiento. El análisis estadístico se basó en ecuaciones estructurales y se realizó con el software WarpPLS versión 6. La calidad de los servicios tuvo un efecto significativo en la satisfacción con el servicio ( $\beta = 0,504$ ;  $P < 0,001$ ). La calidad del producto principal tuvo un efecto significativo en la satisfacción con el juego ( $\beta = 0,658$ ;  $P < 0,001$ ). Además, la satisfacción con el juego tuvo un efecto significativo sobre las intenciones de comportamiento ( $\beta = 0,514$ ;  $P < 0,001$ ). Sin embargo, el efecto de la satisfacción con el servicio sobre las intenciones de comportamiento no fue significativo. Por ello, es recomendable que los organizadores de megaeventos deportivos consideren estos resultados con el fin de mejorar las intenciones de comportamiento, la satisfacción y la calidad percibida de los espectadores.

**Palabras clave:** Intenciones de comportamiento; satisfacción; calidad percibida; voleibol.

### 1. Introduction

Service quality is one of the most important issues in the field of service management and marketing (Grönroos, 1990; Rasouli, Sajjadi, Mosaffa, & Rasekh, 2020). Bojanic, Kozina, & Tunjic (2016) confirm that the quality of a product or service affects the market share and total sales of companies. Moreover, quality is one of the crucial factors influencing customer purchasing decisions. Szwarc (2005) points out that an excellent service quality increases customer satisfaction and strengthens customer loyalty, leading to increased profits. Theodorakis et al. (2017) indicate that satisfaction partially mediates the relationship between service quality and spectators' behavioural intentions.

Nowadays, customers' commitment is a very important

aspect of business (Aparicio et al., 2016; García et al., 2016). It means paying attention to their levels of satisfaction, asking for their opinion and measuring quality from their point of view (Pakdil et al., 2009). The importance of service quality, customer satisfaction and loyalty are felt in all businesses and industries, and the sports industry is no exception. Over the past 20 years, research on service quality has been one of the areas that has advanced more in Sports Management Studies (Yoshida, 2017).

There is no doubt that the management of sports organizations, as service-oriented organizations, should use their efforts to obtain customer satisfaction and provide quality services. With the improvement of the quality services of sports venues, the tendency of people to engage in sports activities will increase. If the managers of sports venues apply the services at a level slightly higher than the customer's expectations, and internalize it in such a way that it becomes a

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part of the organization's culture, it will attract more people to sports.

Yoshida and James (2010) examined spectators' satisfaction during a professional baseball game and two college football games. The results showed that the atmosphere of the game was a strong predictor of spectators' satisfaction, and the stadium staff and access to facilities were the most important prerequisites for service satisfaction. Avourdiadou and Theodorakis (2014) concluded that service quality consistently affected the overall customer satisfaction of sports and fitness centers, and that satisfaction was a key factor in determining future customer behavior. In another study, Liu and Chen (2012) showed that the quality of service and customer satisfaction with swimming clubs was an important factor in maintaining their loyalty. Also, Howat and Assaker (2016) studied the consequences of the quality of services for participants in Australian sports and recreation aquatic centers. The study showed that, as customers had the right to choose the right service provider, high-quality services were needed to satisfy them.

Few studies have focused on the quality of services provided during sporting events and the quality of the sporting events in general. Researchers in sports marketing have usually examined two types of satisfaction in sporting events: "game satisfaction" and "service satisfaction" (Yoshida & James, 2010). The gap in most of these studies is that the two variables have not been studied together. Therefore, in the present study, the quality of the event is seen as a level of meeting the needs and expectations of the spectators, which includes aspects such as technical preparation of players, entertainment, quality of interaction of the staff, facilities and competition halls, planning and signs and signposts.

Considering the importance of the presence of spectators during sports events, we attempted to answer the following research question: "How satisfied were the spectators with the quality of the event and the services provided at the 2017 Asian Men's U23 Volleyball Championship, which was held in Ardabil in May 2017?" Therefore, this study aimed to determine which of the dimensions of service quality (financial, human resources, facilities, equipment, etc.) had the greatest impact on increasing audience satisfaction.

## 2. Methods

### 2.1. Participants

The statistical population of the study was constituted by the spectators present at the 2017 Asian Men's U23 Volleyball

Championship, which was held in Ardabil (Iran). The volume of the mentioned community was estimated at 60,000 people considering the capacity of the venue and the number of possible competitions in the preliminary stage (10 competitions). The sample was composed of 351 spectators that completed the questionnaire.

### 2.2. Instruments

The instrument used was a questionnaire with five sub-questionnaires about service quality, main product quality, service satisfaction, game satisfaction, and behavioral intentions (Yoshida and James, 2010). Also, five demographic questions were added at the beginning of the questionnaire. After translating the questionnaire from English to Persian by one translator, the questionnaire was returned to the original language by another translator to confirm its compliance with the original version. Then, the Persian questionnaire was given to 10 sports management professors and experts and was approved. Also, the reliability of the questionnaire was confirmed by Cronbach's alpha method and in the test stages of the measurement model.

### 2.3. Statistical analysis

The statistical analysis was based on structural equations and it was carried out with the software WarpPLS version 6. A partial least squares approach was used to test the model of research and study the relationships between variables.

## 3. Results

The analysis of descriptive variables showed that the average age of the spectators analyzed was 27.2 years. According to marital status, 52.3 % of them were single and 47.7 % were married. Respondents watched live volleyball matches an average of seven times a year.

According to Table 1, the factor loading of all variables was higher than 0.4. Therefore, according to Kock (2012), the measurement model can be considered homogenous. In the case of composite reliability, all the values were higher than 0.7, confirming these results the internal consistency of the model. Also, all the values of the average variance extracted (AVE) were higher than 0.5, which confirms the convergent validity of the measurement model (Table 1).

**Table 1.** Fit Index of the Model

Constructs (Abbrev.)	Indicators	Factor Loading	Composite Reliability	Cronbach's Alpha	AVE
Service Quality (S.Q)	Stadium Employees	0.523	0.764	0.778	0.528
	Facility Access	0.817			
	Facility Space	0.801			
Core Product Quality (C.P.Q)	Opponent Characteristics	0.807	0.770	0.775	0.626
	Player Performance	0.774			
	Game Atmosphere	0.623			
	Team Characteristics	0.720			
Service Satisfaction (S.S)	Satisfaction	0.645	0.845	0.861	0.578
	Happiness of Service	0.788			
	Delight of Service	0.705			
Game Satisfaction (G.S)	Satisfaction	0.678	0.813	0.832	0.562
	Happiness of Game	0.701			
	Delight of Game	0.603			
Behavioral Intentions (B.I)	Recommend to Friends	0.589	0.849	0.862	0.532
	Participate in the Future Years	0.661			
	Re-select the Same Game	0.630			

The following criterion is recommended for discriminant validity assessment (Table 2): for each latent variable, the square root of the average variance extracted should be higher than any of the correlations involving that latent variable. That is, the values on the diagonal of the table containing correlations among latent variables, which are the square roots of the average variances extracted for each latent variable, should be higher than any of the values above or below them, in the same column. Or, the values on the diagonal should be higher than any of the values to their left or right, in the same row; which means the same as the previous statement, given the repeated values of the latent variable correlations table (Kock, 2012). According to Table 2, the values on the diagonal of the table are higher than any of the values above or below them. Therefore, the discriminant validity of the model is confirmed.

**Table 2.** Discriminant Validity

Constructs	S.Q	C.P.Q	S.S	G.S	B.I
S.Q	0.73	0.52	0.60	0.57	0.59
C.P.Q		0.72	0.45	0.33	0.48
S.S			0.79	0.39	0.46
G.S				0.77	0.53
B.I					0.71

After confirming the validity and reliability indicators, the path coefficients and significant level of the model relationships were examined. Table 3 shows the beta coefficients and the significant level of each relationship. According to Table 3, the quality of services had a significant effect on service satisfaction ( $\beta=0.504$ ,  $P<0.001$ ). The core product quality had a significant effect on game satisfaction ( $\beta=0.658$ ,  $P<0.001$ ). Also, the game satisfaction had a significant effect on behavioral intentions ( $\beta=0.514$ ,  $P<0.001$ ). However, the effect of service satisfaction on behavioral intentions was not significant.

**Table 3.** Summary of Results of Comprehensive Model Testing.

Path	Path Coefficient	Significant Level
Service Quality → Service Satisfaction	0.504	0.001
Service Satisfaction → Behavioral Intentions	0.107	0.051
Core Product Quality → Game Satisfaction	0.658	0.001
Game Satisfaction → Behavioral Intentions	0.514	0.001

R-squared coefficient is a measure calculated only for endogenous latent variables, and that reflects the percentage of explained variance for each of those latent variables. The

higher the R squared coefficient, the better is the explanatory power of the predictors of the latent variable in the model, especially if the number of predictors is small (Kock, 2012).

According to Table 4, the 25.4 % of service satisfaction variance is explained by service quality. The 43.3 % of game satisfaction variance is explained by core product quality. Finally, the 35.1 % of behavioral intentions variance is explained by other variables.

Table 4. Explained Variance of the Dependent Variables.

Endogenous Constructs	R <sup>2</sup>
Service Satisfaction	0.254
Game Satisfaction	0.433
Behavioral Intentions	0.351

The model with the results of testing the hypotheses is presented in Figure 1:

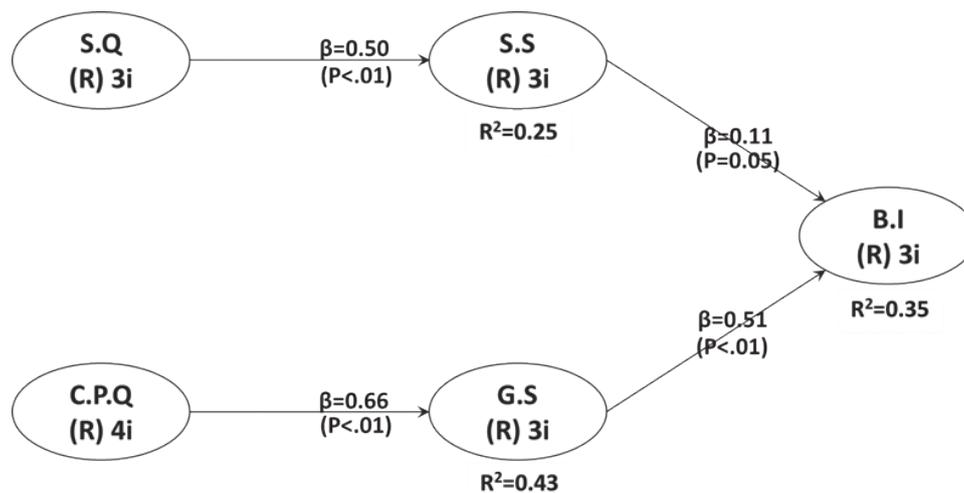


Figure 1. Model with the results of testing the hypotheses.

#### 4. Discussion

Hosting a mega sport event like the 2017 Asian Men's U23 Volleyball Championship can provide valuable experiences for sports organizations and pave the way for more important hosting. One of the factors that can lead to success in hosting is the issue of spectators 'satisfaction with sporting events'. Also, when the spectators are satisfied with the different elements of the event (media, sponsors, policymakers and the government, etc.), they will be more inclined to support future sporting events, and this can be encouraging for the responsible organizations in order to host more sporting events.

Although the concept of customer satisfaction has been explored in a large number of non-sports and even sports researches, this type of research can have interesting and practical results. Since sporting events are cross-sectional and one-time experiences, they are fundamentally different from tangible and physical goods. Of course, the product of sports events is part of the service, but there are some differences with the service. For example, the services provided in a sports and health center or a sports pool are somewhat stable and can be expected to be more stable in terms of quality, while sporting events have a very low level of stability in terms of product dimensions. Therefore, providing

satisfaction to users of event services seems more challenging.

The first finding of this study showed that service quality has a significant positive effect on service satisfaction ( $\beta=0.504$ ), in other words, with increasing service quality, customer satisfaction will also increase. This result is consistent with several studies (Avourdiadou & Theodorakis, 2014; Liu & Chen, 2012; Sei-Jun & Kyung-Rok, 2008; Yoshida & James, 2010). To explain this relationship, it can be said that the effect of service quality on satisfaction is an expected relationship.

The second finding of the study showed that service satisfaction does not have a significant effect on spectators' behavioral intentions. In fact, despite the importance of satisfaction with the services in spectators, the event cannot lead to behavioral intentions. If we consider behavioral intentions, which include recommending an event to others, participating in an event in the coming years, and re-selecting the same game as the ultimate goal, it means that the behavior that event organizers seek to repeat does not depend on service satisfaction. This result actually shows that the variables which create loyalty in customers of sporting events are different. Duan et al (2020) found that perceived psychological and social impacts were positively predictive of quality of life

and event support, while perceived environmental impact was significant in facilitating residents' quality of life but not in their support for the event.

The third finding of the research showed that the core product quality of the event has a significant positive effect on game satisfaction ( $\beta=0.658$ ). Comparing this finding with the first result, we can observe some interesting points. Firstly, the core product quality differs from the quality of services, and secondly, the satisfaction of services is different from the satisfaction of the game. Also, the impact of the core product quality on game satisfaction is stronger than the impact of the quality of the service on the satisfaction with the service (0.658 versus 0.504).

The fourth finding of the study also showed that game satisfaction has a significant positive effect on behavioral intentions ( $\beta=0.514$ ). While in the second finding, service satisfaction did not have a significant effect on behavioral intentions, this new finding shows the greater importance of game satisfaction, which is also affected by the core product quality.

The above findings generally show that creating positive behavioral intentions in customers of sporting events (or spectators) depends more on game satisfaction than service satisfaction, and in this regard, the core product quality (including competitors' characteristics and performance) should be considered. Reflecting on the characteristics of the core product quality of sporting events, it is clear that event organizers should double their efforts to maintain the quality of the core product, as the above factors will vary from situation to situation. Even assuming that competitors, players, and teams are stable, it is also not possible to ensure the stability of their performance in every game of the event, and if negative factors arise in this regard, it can lead to a decrease in the quality of the core product and, consequently, to a decrease

in game satisfaction.

Although the quality of service had a positive effect on service satisfaction, the effect of service satisfaction on behavioral intentions in this study was not significant. However, the lack of confirmation of the relationship between service satisfaction and behavioral intentions in this study may not necessarily be repeated in other studies, which indicates the need for further studies. In general, although the spectators' behavioral intentions are mostly affected by game satisfaction and the core product quality, the quality of services and satisfaction with services should also be considered because the satisfaction with services is necessary for positive behavioral intentions in customers. However, according to our results and regarding the customers of sports events, the satisfaction with services would not be a sufficient condition and the importance of game satisfaction would be higher.

## 5. Conclusion

According to the results of this study, it seems that the core product quality and the satisfaction with the game are more important than the quality of services and the satisfaction with the services in a mega sport event. Therefore, the organizers of mega sport events should take action to strengthen the core product. If we consider that the quality of services depends on employees, facilities and physical space, adding emotional characteristics can lead to strengthen the quality of the core product. The characteristics of competitors and players, and the atmosphere of the game and teams were elements of product quality, and these elements could be improved by actions such as holding voluntary competitions between spectators, signing ceremonies, or souvenir photos with players and coaches.

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