

## **Providing a multidimensional measurement model for assessing quality of sport tourism services: Empirical evidence from sport conference as sport event tourism**

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### **Abstract**

This study aimed to empirically develop a reliable and valid model specifically for measuring service quality of sport conferences as sport event tourism. To assess the model which has been established based on the survey, data gathered from 136 of attendees in sport conference. Finding of this study showed that participants form their service quality perceptions based on their evaluations of 4 primary dimensions including: venue quality, conference quality, access quality and trip quality. Total variance of these dimensions explained %53.82 variance of services quality. Confirmatory factor analysis showed that each of the four factors influence on the services quality, and the fit indices confirmed the conceptual model that presented in this study (Chi-Square=85.456, df=23, P=0.001, RMSEA=0.142). As a result, it is recommended to conference organizer and tourism managers, to considering these factors next to each other in order to increase and improve the service quality.

### **Keywords**

Conference, Multidimensional scale, Service quality, Sport event, Sport tourism.

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## Introduction

Sport is now recognized as the world's largest social phenomenon (Kurtzman and Zauhar, 2003) and tourism its biggest industry (Goeldner and Ritchie, 2012). Sport tourism has a considerable position in our society as well as our economy today (Nice, 2004; Ritchie and Adair, 2004). Standeven and De Knop (1999) defined sport tourism as "all forms of active and passive involvement in sporting activity, participated in casual or in an organized way for noncommercial or business/commercial reasons, that necessitate travel away from home and work locality" (p. 12). Baker and Crompton (2000) noted that tourists are an integral aspect of the service process in tourism. Tourism literature attempts to explain how tourists evaluate the quality of services, also places the tourists as a focal point for understanding sport tourism (Shonk and Chelladurai, 2008). Scholars in sport have examined perceptions of service quality by participants within a variety of contexts. The sport tourism industry is largely influenced by the quality of the services provided (Kouthouris and Alexandris, 2005).

What is perceived service quality? How must service quality be measured? These two questions have been severely argued by academics over the last three decades and are amongst the most frequent topics in management and marketing literature (Martínez and Martínez, 2010). In order to answer these questions, several service quality models have been proposed and widely examined in applied research (see Martínez and Martínez, 2010; Seth *et al.*, 2005). Some important models in service quality include: Grönroos (1982, 1984), Parasuraman *et al.* (1985, 1988, 1994), Cronin and Taylor (1992), Rust and Oliver (1994), Dabholkar *et al.* (1996), Brady and Cronin (2001). All these models share a common specification that is they propose a multidimensional service quality conception that it is inherently linked to the measurement of consumer quality perceptions (Martínez and Martínez, 2010). Therefore, service quality models propose a frame for realization what service quality is, as well as how to measure service quality in each proposed conception (Martínez and

Martínez, 2010). For the past two decades or more discussion have happened about the measures and dimension of service quality about whether industry and type of service have any influence on service quality perceptions; whether service quality should to be assessed specifically or more generally (Yildiz and Kara, 2012). Some scholars support the development of model and measurement instruments for specific service environments. Babakus and Boller (1992) noted that there is a requirement to develop industry-specific measures of service quality. The more particular the scale items are in a service quality instrument and the more enforceable they are to a manager's own contextual situations, the better they will be able to use the information. Therefore, for taking a present instrument and trying to proper it to the groundwork, a better approach is to develop an instrument, especially for that service industry (Karatepe *et al.*, 2005). Hence, this study attempt to develop a service quality multidimensional measurement model designed for sport tourism specifically for sport conferences as event sport tourism.

### **Service Quality**

The service quality construct derived out of the quality literature in manufacturing. Quality originality dated back to the 1920s when producers began to focus on controlling the physical output of goods, and the internal measurements of the output process (Kandampully, 2002). Service quality, defined as “the difference between what is expected from each of the service dimensions and what a consumer perceives he or she receives from them” (Mackay and Crompton, 1988: 46), has become a major differences of service enterprises (Kandampully, 1998). Many studies revealed that service quality has been linked to customer satisfaction, customer loyalty, value and repurchase intention (Ko and Pastore, 2004; Kandampully, 1998; Laroche *et al.* 2004; Fornell, 1992). Identifying dimensions of service quality is a beneficial approach for determining and enhancing service quality (Brady and Cronin Jr., 2001). Dimensions of quality associated with a service can be made into a benefit package, which is a “clearly defined set of tangible (goods-content) and intangible (service-

content) attributes the customer recognizes, pays for, uses or experiences” (Collier, 1994: 63) in this context. There are several delineations of quality dimensions including Grönroos (1984), Parasuraman, Zeithaml and Berry (1985), Lehtinen and Lehtinen (1991), Dabholkar, Thorpe and Rentz (1995) and Brady and Cronin (2001). It is worth mentioning that the aforesaid studies of service quality dimensions are to a great extent overlapping each other. Moreover, the recognized dimensions are global in nature and do not address the specific elements that should be included in quality evaluations. Hence, identifying significant elements of service quality in sport tourism is very necessary and important. (Shonk and Chelladurai, 2008).

### **Sport Tourism**

Sport and tourism have been interrelated throughout history. However, the two phenomena have usually been treated as completely separate fields. However, sport is a special segment of the tourism industry. The phenomenon of sport must be analyzed on all levels in order to obtain a clear understanding of the impact it has in relation to the tourism industry (Chen et al., 1999). Sport tourism is defined as “all forms of active and passive involvement in sporting activity, participated in casual or in an organized way for noncommercial or business/ commercial reasons, that necessitate travel away from home and work locality” (Standeven and De Knop, 1999: 12). Some of researchers break sport tourism down into separate categories, for example, Standeven and De Knop (1999), Gibson (2003), and Weed and Bull (2009). Therefore, based on the purposes or motives of the tourist, the variety of sport tourism can be classified into one of four types– participation in an organized sport event, participation at a specific location, spectating at an organized event and nostalgia sport tourism (Shonk, 2007). The present study considers sport tourism focused on spectating at an organized sport conference as sport event.

A general growth in discretionary income (Thwaites, 1999), and cities turned to sporting facilities (Turner and Rosentraub, 2002) are two important factors that can be attributed to the growth in sport

tourism. It is not surprising that extreme attention has been given to sport tourism in large urban cities trying to attract spectators for sporting events (Kim, Jun, Walker and Drane, 2015). Sporting events are often justified as tools for increasing the economy of a host city, region or country (Chalip, 2004). According to these trends, cities that have placed more emphasis on marketing sport and place are growing. Local administrators provide a variety of sport-related organizations and services within urbanized communities in order to achieve economic and social development (Bradish, 2003).

### **Service Quality in Sport and Tourism**

Since sport tourism is influenced by the quality of services (Kouthouris and Alexandris, 2005), tourism literature attempts to explain how tourists evaluate the quality of services. In this regard, Baker and Crompton (2000) noted that tourists are an impartible aspect of the service process in tourism. Echoing the emphasis on attendees in the context of sport tourism, scholars in sport have inquired perceptions of service quality by participants in the sport management and marketing. As an example, Alexandris, Zahariadis, Tsorbatzoudis, and Grouios (2004) investigated service quality within health and fitness centers; Kyle, Theodorakis, Karageorgiou and Lafazani (2010) explored service quality within the context of ski industry; Alexandris, Douka and Balaska (2012) conducted service quality in the recreational and leisure sport industry; Theodorakis, Koustelios, Robinson and Barlas (2009) examined service quality at sport event.

Chelladurai and Chang (2000) proposed that any quality evaluation of a service should begin by identifying the targets of quality evaluations, these targets of quality evaluations include: a) the core service; b) the physical context such as the physical facilities and equipment in which the service is provided; and c) the interpersonal interactions in the performance of the service. The core service relates to the performance of the promised service such as expert coaching or fitness instruction. Core service is described as similar to the conceptualization of the “reliability” dimension in the SERVQUAL

instrument. The physical context dimension is described as the quality of the facilities, their location, the equipment and tools used in the production of the service, the amenities provided to the clients, the accessibility of the facilities, and the equipment's ease of use. Physical context is described as similar to the conceptualization of the "tangibles" dimension in the SERVQUAL instrument. Finally, the interpersonal interactions dimension refers to the helping orientation and behavior of the employee, courtesy and care toward clients, and the prompt delivery of individualized attention. This dimension is described as similar to the conceptualization of the responsiveness, assurance and empathy dimensions in the SERVQUAL instrument. The SERVQUAL model consisted of five dimensions of tangibles, reliability, responsiveness, assurance and empathy (Parasuraman *et al.*, 1988). Moreover, Ko and Pastore (2004) proposed a four dimensional model of service quality in the recreation industry including of program quality, interaction quality, outcome quality and physical environment quality. Program quality refers to the customer's relative perception of the excellence of the program experienced. Interaction quality focuses on how the service is delivered and focuses on the attitudes and behaviors of both the employees of the service provider and other customers. Outcome quality represents what the consumer gains from the service. Physical environment quality refers to physical facilities or surroundings. Shonk and Chelladurai (2008) stated that four primary dimensions or targets of evaluation indicated sport tourism quality. These dimensions comprise (a) access quality; (b) accommodation quality; (c) venue quality; and (d) contest quality. The overall quality of sport tourism is accounted by these four dimensions (Shonk and Chelladurai, 2008).

In this study, based on the literature on service quality in general, quality in sport services and especially quality in sport tourism services, a multidimensional measurement model has been developed that determines attendees' perceived service quality in sport conference as sport event. Researchers propose that overall quality of sport conference in regard to sport tourism will be accounted by four dimensions including venue quality, access quality, conference quality

and trip quality (Fig. 1). Hence, a comprehensive set of attributes of sport tourism and conference services identify and then proceed to develop a model to measure the quality of services.

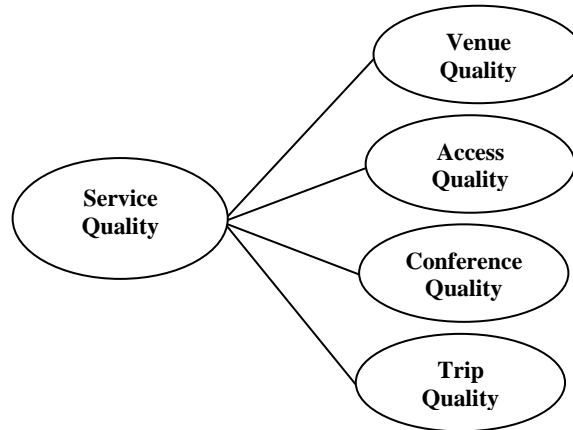


Fig. 1. Proposed model of the assessing quality of sport tourism services

## Method

### Research Design

This study was designed as a non-experimental cross-sectional descriptive study. A cross-sectional study is defined as an examination of a phenomenon that occurs at one point in time (Depoy and Gitlin, 1994). For the current study, data were collected at one point in time from tourists in a sport conference. The survey method was employed in this particular study because of the economy of the design and the quick turnaround in collecting the data.

### Participants

The population of the study was the tourists who travelled 50 miles or more to attend the First National Conference on Sport Tourism Development and Management in Shahrood City, Iran. Accordingly to Kline (1994), the samples in factor analysis was determined based on the number of exploratory variables – at least 2 fold and the maximum 10 fold (Kline, 1994). As a result, in this study, because the number of exploratory variables was 35 items, 140 participants in the study were

recruited based on a non-probability sampling method. A convenience sampling technique was used to select subjects for the study. Convenience sampling is a non-random sampling technique, which is typically conducted in a non-probability sampling method so that, asked them to take part in the study and to complete the standardized, self-administered questionnaire. The participants were assured that all information gathered would be held confidential, presented in group form and only used in this study. The surveys distributed included a cover letter that explained the project and requested participation, and instrument. Finally, participants who expressed an interest in the results will receive a summary of the findings and their interpretations upon their request.

A total of 140 initial responses have been received. In order to ensure the accuracy of the survey results, selected the same answer for all question or having too many missing answers were excluded. Thus, the final sample consisted of 136, resulted in a response rate of (97.14%).

Amongst the respondents, (58.8%) were male and (41.2%) were female. Age of participants ranged from 19 to 42 years with a mean age of 26.24 years (Std. Deviation =5.05); as it shows in Table 1, the majority of respondents were single (72.1%). Close to (60%) of respondents traveled between 1 to 2 times per year in order to attend sport conferences. Also, some information about respondents is presented in Table 1.

Table 1. Sample characteristics

Measure	Item	Frequency	Percentage (%)
Gender	Male	80	58.8
	Female	56	41.2
Education	Associate degree	9	6.6
	Bachelor's degree	33	24.3
	Master's degree	52	38.2
	D.C.	42	30.9
Marital status	Single	98	72.1
	Married	38	27.9
Travel to participate in sport conferences per year	1-2	81	59.6
	3-5	36	26.5
	6-12	9	6.6
	More than 12	10	7.4



## **Data Collection**

To test the proposed model, data from tourists were collected using a structured questionnaire. Based on an extensive review of literature from service marketing within sport and tourism, 35 items were generated to measure service quality. Measures were translated from English into Persian. Hence, to ensure content validity, they were assessed by a panel of experts comprised of ten professors familiar with the services literature and sport tourism, and based on their feedbacks; some items were reworded, added or deleted so that respondents would understand the questions correctly. For each item, a five-point Likert scale was used with anchors from “1=strongly disagree” to “5=strongly agree” to measure respondents’ agreement levels on each item. The final questionnaire also included questions about demographics. Next, a pre-test of the questionnaire was conducted with 30 respondents to confirm that the instrument and measures were clear, legible and understandable. Based on respondents’ feedback, the questionnaire was revised and finalized. Also, to assess the internal consistency (reliability) of the questionnaire’s items, Cronbach’s alpha was calculated. The reliability of the scale was found to be:  $\alpha = 0.93$ .

## **Data Analysis and Results**

### **Test for validity and reliability**

To test for construct validity, scale items were analyzed using the principal components method of factor analysis with VARIMAX rotation (Table 2). Results of exploratory factor analysis show the existence of four clean dimensions explaining 53.82% of the total variance. Factor loadings of the scale items were relatively large, ranging from 0.451 to 0.872. These were significantly more than the minimum acceptable threshold for adequately representing the construct validity of 0.45. The first factor had fifteen items and explained the largest variance (24.87%) and clearly represented the Venue Quality (VQ) dimension of the service quality. The second factor contained eight items, and this explained 10.35% of the total variance and corresponded with the Conference Quality (CQ)

dimension of the construct. The third factor had five items, explaining 10.17% of the total variance and corresponding to the Access Quality (AQ) dimension of the construct. Finally, the fourth factor contained four items, and this explained 8.42% of the total variance and corresponded with the Trip Quality (TQ) dimension of the construct. Furthermore, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was used to assess the appropriateness of factor analysis (Hair *et al.*, 1995). The KMO measure was computed and the results indicate an index of 0.709, ensuring an excellent sampling adequacy and supporting the determined factor structures. Reliability of the scale was assessed using Cronbach's alpha. The values of Cronbach's alpha obtained for four factors ranged from 0.706 to 0.926, indicating very good reliability scores and exceeding the 0.70 threshold cited in the literature. For discriminant validity, the estimated correlations between the four bases were from 0.386 to 0.612 (Table 3), which is less than the recommended value of 0.85 (Kline, 2005).

**Table 2. Results of factor analysis and reliability coefficients**

Scale items	Venue Quality	Conference Quality	Access Quality	Trip Quality
Venue of the conference	0.872			
Staff of provide catering in accommodation	0.789			
Kindness from the staff of conference's venue	0.766			
The conference registration fee	0.713			
Food cost at conference venue	0.708			
Design of conference hall	0.706			
Special equipment at conference hall	0.687			
The sights of conference hall	0.686			
Hygiene and cleanliness of conference venue	0.647			
The internet service at conference venue	0.646			
The conference hall was best	0.622			
Prayer room at conference hall	0.607			
Access of conference hall	0.588			
The conference hall appealing	0.579			
Useful guidelines at conference	0.484			
The presence individuals with high scientific level at conference		0.707		

Continue Table 2. Results of factor analysis and reliability coefficients

Scale items	Venue Quality	Conference Quality	Access Quality	Trip Quality
Easy to understand presentations		0.566		
Good Ad and public announcement about conference		0.553		
Planning several ceremony for conference		0.532		
Presence officials at conference		0.526		
Content of conference		0.522		
The conference was best		0.490		
Individuals who presented		0.476		
Access to amenities during the trip			0.693	
Access to around the city			0.681	
Access to the conference city			0.608	
Access to conference venue			0.578	
Access to routes and paths of conference city			0.539	
On how trip				0.720
Proper and perfect process to reach the conference venue and city				0.714
Accommodations costs				0.683
Being interesting and pleasant trip experiences				0.451
Percentage of variance explained	24.87	10.35	10.17	8.42
Cumulative % of variance explained	24.87	35.22	45.39	53.81
Cronbach's alpha	0.926	0.807	0.745	0.706

Table 3. Correlations among dimensions

Dimensions	Mean	Std. Deviation	1	2	3
1.Venue Quality (VQ)	2.333	0.758			
2.Conference Quality (CQ)	1.983	0.646	0.612**		
3.Access Quality (AQ)	2.273	0.637	0.548**	0.415**	
4.Trip Quality (TQ)	2.229	0.806	0.408**	0.473**	0.386**

\*\*significant at P<0.001

### Model Testing

Since the proposed multidimensional service quality model was generated from the review of the existing literature, it is necessary to empirically confirm that the model is supported by the survey data. For this purpose, Confirmatory Factor Analysis (CFA) was carried out using AMOS 18. In this analysis using item parceling (combining items into small groups of items within scales or subscales). Bandalos and Finney (2009) report that the three most common reasons

researchers cite for using item parceling are to increase the stability of the parameter estimates improve the variable to sample size ratio, and to remedy small sample sizes. Then, a series of confirmatory factor analysis were estimated to confirm the proposed multidimensional model. Figure 2 and table 4 present the measurement model and the results of model fit indices. For this study, the test for equality of covariance and means yields a chi-square of 88.73 with 23 degrees of freedom ( $P = 0.001$ ) and a RMSEA of 0.142. The RMSEA tends to impose a harsher penalty for complexity on smaller models with relatively few variables or factors. This is because smaller models may have relatively few degrees of freedom, but larger models may have more “room” for higher df values. Consequently, the RMSEA may favor larger models. In contrast, the Goodness-of-Fit Index (GFI), was relatively insensitive to model size (Kline R. , 2011). While these fit measures suggest a good fit, the other fit indices also pointed to a fair and acceptable model fit (NFI= 0.888, CFI= 0.914, GFI= 0.873). In so far as the proposed model fit the data reasonably well, we did not modify the model in any way as suggested by Schreiber et al. (2006). In addition, because of Chi-square statistics’ sensitivity to sample size, the normed chi-square ( $\chi^2/df$ ) was recommended as a measure of model fit (Kline, 2005). In this model, Chi-square to degrees of freedom was 3.715. Bollen (1989) proposed that values of normed chi-square of 2.0, 3.0, or even as high as 5.0, have been considered as indicators of reasonable fit.

Table 4. Model fit indices

Fit indices	Score
Chi-square	85.456
Degrees of Freedom (DF)	23
Chi-square to degrees of freedom	3.715
P-value	0.001
Comparative Fit Index (CFI)	0.914
Normed Fit Index (NFI)	0.888
Goodness of Fit Index (GFI)	0.873
Incremental Fit Index (IFI)	0.915
Root Mean Square Error of Approximation (RMSEA)	0.142

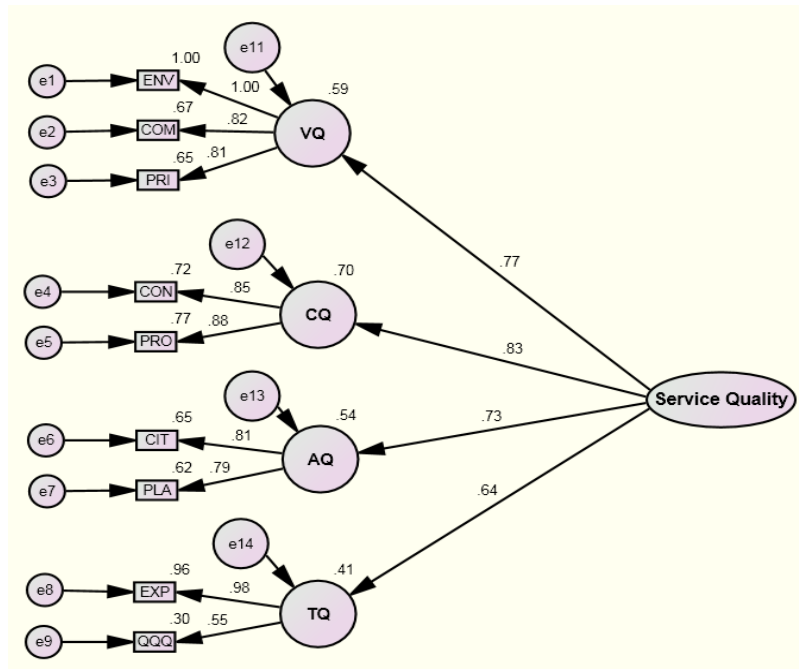


Fig. 2. Service Quality Measurement Model at Sport Conference

### Discussion

Every year, tenth, hundreds and thousands congress, meetings, conferences, seminars, symposium and so on holding perimeter sports subjects in entire world. Participants in every program according to subject and its importance get together for several days and after discussing and elapsing short duration that its details determined based on timing program; separate from each other. Therefore events contain sport, reckon attractiveness and are charming factor for tourism in city or country. Sport tourism is services industry and mainly affected by theirs quality. Shonk (2007) explain one important attribute in tourism that called services industry. In fact, improving service quality by tourism organizations and organizer sport conferences is important index in evaluating operation. Therefore, demographic characteristics (such as age, gender, education) are impact factor on tourist’s expectation and should attention be paid to them for anticipating the extent of tourists presence (Tikander, 2010). In this study, mean age of samples (26.24±5.05) showed that the

majority of participants in this event were young and students. Also, age is important criterion for judgment related to income. Therefore, we have expected that average of income in sample is relatively middle (because individual has private income and with regard to moral value we do not ask them directly). Hence attention should be paid to this point that extent of income in tourists could effect on their expectation and understanding quality of services. In this study, most present tourists (%38.2) had MA degree, which showed their affinity and motivation toward participation in the scientific conferences. Cha, Mcclery and Uysal (1995), believed that education is mainly variable that tourist motivations can be different based on their educations. For example, it is determined that individual with high education has more affinity to travelling (Braz, 2002).

From point of view of gender's separation in tourists, %58.8 are men and %41.2 are women, that indicates the presence of women in these conferences as tourist, since majority events in our country are single gender and men have maximum presence in it; hence, this problem is unfavorable for sport tourism section and causes disappearing of target market. Therefore, holding sport scientific conferences can help to attract tourists especially in women part, because most part of society as target market in tourism, it does not have any restriction for presence in event sport.

Also, approximately %60 individuals traveled only 1 to 2 time in year for participating in sport conferences, that showed low reception individual from these events, while approximately %7.5 of them more than 12 times in year travel for participating in sport conferences, as a result organizer should pay attention to attract individual and recognize the main factor and effective on service quality and improving one of the action.

A basic principle of quality management is to improve quality, which is must first be measured. On the basis of the need to develop specific measurement tools for different services (Carman, 1990), this study aimed at developing and validating a model specifically for measuring sport conference service quality. A multidimensional model has been proposed based on an extensive literature review and

then tested and validated by the survey data collected. This model provides a very useful tool, for both researchers and practitioners, for measuring and managing service quality in the sport conferences.

Finding of this study showed that attendees in conference form their service quality perceptions based on their evaluations of four primary dimensions including: venue quality, conference quality, access quality and trip quality.

The results related to inferential analysis data showed from 35 items of questionnaire about service quality, which 32 items had high value. Accordance to exploratory factor analysis, these items classified in 4 groups. Adventing 4 factors in this study were convergent with desired dimension by Shonk and Chelladurai (2008) and adverse with 9 factors model by Kelley and Truly (2001). Of course these investigators measured services quality in sport matches.

First factor had called "Venue Quality". This factor refers to quality of hall conference, hygienic situation and internet service, manner of contact in personnel, and existence prayer room. Between these item, "Venue of the conference", "Staff of provide catering in accommodation", "Kindness from the staff of conference's venue", and "The conference registration fee" had the most factor loading in this factor. Therefore, for improving quality in service, it is necessary to pay more attention to qualities of venue, manner and encounter of personnel with participants and proportion cost of register with participant's income.

Second factor is "Conference Quality" and refer to individual presence with high scientific degree, formal authorities presence, conference content and manner of presentation. According to items of this factor, for obtaining favorable quality in this section, attention should be paid to invite scientific individual and important professors for presence and lecture in conferences. Also, manner or way of information technology and advertising about conferences could lead to desired quality. In addition to designing and having plan and different ceremony for participants, can help to quality.

Third factor is called "Access Quality". Meaning of this factor is ease and velocity on reaching participants to this city and hall

conference. “Accessing to amenities during the trip”, “Accessing to around the city”, “Accessing to the conference city”, “Accessing to conference venue” were the most factors loading in this part. For improving and achieving to service quality, welfare was applied and hall was selected in suitable place that majority of participants have easy access to it and it is one of the responsibilities on holders sport conferences.

Final factor is “Trip Quality” and it refers to desired experience of tourism and resident’s cost in city of holding conferences. Supplying condition that tourists can obtain desirable experience from travelling to this city and adjusting resident’s cost in city can lead to improve service quality, especially tourism quality.

Each of the four identified and verified dimensions had significant loading. For practitioners, the thirty two items across four factors can serve as a useful diagnostic purpose. They can use the validated scale to measure and improve service quality.

Results related to confirmatory factor analysis showed that 4 factors identified throughout exploratory factor analysis were effective on service quality in sport tourism. As a result, practitioners must pay attention to four factors all together for obtaining desirable service quality in this area. Between these factors, “Conference Quality” had the most effect on service quality. This result showed that presence elite individual, important professor for lecture and presentation article in conference along with suitable planning and variety ceremony had high effect on conference quality and in turn at total service quality. In this case, Shonk and Chelladurai (2008) believe that among quality dimensions in sport tourism service, contest is the most important factor on service quality and it has main portion in satisfying tourists.

“Venue Quality” was second factor that had the most effect on service quality. Price variable, interaction with personnel and conference environment had the most effect on this factor. Therefore paying attention to register fee and cost related to food are important in quality and it is necessary for holders and authorities to take into account the income level of participants, politics and its method in



order to be adjusted. In addition to contact and manner of personnel, giving guidance from them to tourists is effective on quality of venue and tourism service. Since service's personnel in these conferences are temporary part-time workers or volunteers, it's necessary for having quality, they are educated. Interest, ability, politeness, sympathy, contact, and adornment in personnel are items for accessing to desirable quality in venue quality. Also attractiveness in conference hall, prayer room, internet service, hygiene situation and cleanliness are another items in quality that authorities should try to create such environment. Bitner (1990) noted that variations in physical environment can affect perceptions of an experience independently of the actual outcomes. When participants enter to internal place and conference hall, they will be busy to watching it, using beautiful scene, presentation information and amusing them during pause main services, which lead to delightful expectation and improving service quality. In addition, cleaning in these positions that tourists forced stay several days had mail role, for example, cleanliness of conference hall, emptying dustbin, sterile restrooms can also effect on quality that tourists perceived. Venue is not only become clean before reaching participants but also during holding it should be clean continually. In this regard, Shonk and Chelladurai (2008) suggested that noise level, odors, temperature, colors, textures, and comfort of furnishings may influence perceived quality in the service encounter.

The third factor that had the most effect on service quality was "Access quality". These factors include access to city and conference hall, between these items; access to conference hall was important and had most effect on this factor. This result showed ease of access to different places like reaching to city and conference hall affected service quality. Therefore, holding sport scientific conferences in place that tourists have better access to them and creating public transportation for movement participants from different places of city to conference hall lead to improving service quality. Also, Getz (2005) stated that accessibility may relate to such details as parking areas, airports, freeways and public transportation. Sport tourists are more likely to perceive a higher quality experience when they can easily

access the various places and things they want to see and do (Shonk and Chelladurai, 2008).

Final factor was “Trip Quality” that effects on service quality. This factor indicates travelling experience and pleasant to city and service quality.

### **Conclusion**

Service quality in sport tourism is service industry and has especial importance on the other hand. And for obtaining desirable quality, it should be recognized the main aspect of service quality, on the other hand. Our model is focused on event sport tourism referring to a specific type of sport tourism where individuals travel to be attendees at an organized sport conference in a distant place. Creation 4 factors related to service quality, emphasize its multidimensional and indicate that for improving service quality, should pay attention to whole aspects together. Also, we present a model in this study that indicates the effect of “Conference Quality”, “Venue Quality”, “Access Quality” and “Trip Quality” on service quality in sport tourism. Hence, for obtaining desire service quality in sport tourism or improving it, attention should be paid to content conference, exact planning for holding, polite manner in personnel, especially facilities and favorable in conference hall and ease access to conference hall.

### **Limitations and Future Research**

A few limitations of this study should be acknowledged; however, we argue that these should be seen as opportunities to design and develop robust future studies. Firstly the sample used in this study limits our ability to generalize these results to broader populations. The sample was collected from a single Sport Conference in Iran. Future studies could use more comprehensive samples and sampling method in order to significantly improve the generalisability of the results. Secondly, perceive service quality was assessed by collecting data from existing customers. Generalisability of the results may be difficult to extend beyond Iran’s boundaries; therefore, needs to be tested in other

countries and environments. Further studies should apply the measurement instrument in different countries and with different cultural, competitive and market environments in order to test the consistency of our model. Finally, future studies should investigate the relationship between service quality (as measured with the model) and other important organizational outcomes such as customer satisfaction, customer loyalty, value and repurchase intention. We expect that such studies would confirm a positive relationship between service quality and organizational outcome variables in the sport conferences.

## References

- Alexandris, K.; Douka, S. & Balaska, P. (2012). "Involvement with active leisure participation: does service quality have a role?". *Managine Leisure*, 17(1), 54 - 66.
- Alexandris, K.; Zahariadis, P.; Tsorbatzoudis, C. & Grouios, G. (2004). "An empirical investigation of the relationship among service quality, customer satisfaction and psychological commitment in a health club context". *European Sport Management Quarterly*, 4(1), 36 - 52.
- Babakus, E. & Boller, G. W. (1992). "An empirical assessment of the SERVQUAL scale". *Journal of Business Research*, 24, 235-268.
- Baker, D. A. & Crompton, J. L. (2000). "Quality, satisfaction and behavioral intentions". *Annals of Tourism Research*, 27(3), 785 - 804.
- Bandalos, D. & Finney, S. (2009). "Item Parceling Issues in Structural Equation Modeling". In G. A. Marcoulides, & R. Schumacker, *New Developments and Techniques in Structural Equation Modeling* (pp. 269-296). Taylor & Francis.
- Bitner, M. J. (1990). "Evaluating Service Encounters: The Effects of Physical Surroundings and Employee Responses". *Journal of Marketing*, 54(2), 69 - 82.
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York: Wiley.
- Bradish, C. L. (2003). *An Examination of the Relationship between Regional Sports Commissions and Organizational Structure*. Electronic Theses, Treatises and Dissertations, Florida State University. Retrieved from <http://diginole.lib.fsu.edu/etd/3415>.
- Brady, M. K. & Cronin Jr., J. J. (2001). "Some new thoughts on conceptualizing perceived service quality: A hierarchical approach". *Journal of Marketing*, 65(3), 34 - 49.
- Braz, J. I. (2002). "Sport for all moves people around the globe: New perspective for tourism". *Journal of Asiana Sport For All*, 1, 47-52.
- Carman, J. M. (1990). "Consumer perceptions of service quality: An assessment of the SERVQUAL". *Journal of Retailing*, 66(1), 33 - 55.
- Cha, S.; Mccleary, K. w. & Uysal, M. (1995). "Travel Motivations of Japanese Overseas Travelers: A Factor-Cluster Segmentation Approach". *Journal of Travel Reserch*, 34(1), 33-39.
- Chalip, L. (2004). "Beyond Impact: A General Model for Sport Event Leverage". In B. W. Ritchie, & D. Adair, *Interrelationships, Impacts and Issues* (pp. 226 - 252). Tonawanda, NY: Channel View Publications.

- Chelladurai, P. & Chang, K. (2000). "Targets and Standards of Quality in Sport Services". *Sport Management Review*, 3(1), 1 - 22.
- Chen, K.; Groves, D. & Lengfelder, J. (1999). "A system model of sport tourism with implications for research". *Visions in Leisure and Business*, 18(1), 34 - 44.
- Collier, D. A. (1994). *The service quality solution: Using service management to gain competitive advantage*. Milwaukee, Wis. and Burr Ridge, Ill.: ASQC Quality Press .
- Cronin, J. J.; Brady, M. K. & Hult, G. M. (2000). "Assessing the Effects of Quality, Value, and Customer Satisfaction on Consumer Behavioral Intentions in Service Environments". *Journal of Retailing*, 76(2), 193-218.
- Dabholkar, P. A.; Thorpe, D. I. & Rentz, J. O. (1995). "A Measure of Service Quality for Retail Stores: Scale Development and Validation". *Journal of the Academy of Marketing Science*, 24(1), 3 - 16.
- Fornell, C. (1992). "A national customer satisfaction barometer: The Swedish experience". *Journal of Marketing*, 56, 6 - 12.
- Getz, D. (2005). *Event Management & Event Tourism* (2 ed.). Elmsford, NY: Cognizant Communication Corporation.
- Gibson, H. J. (2003). "Sport Tourism: An Introduction to the Special Issue". *Journal of Sport Management*, 17(3), 205 - 213.
- Goeldner, C. R. & Ritchie, J. R. (2012). *Tourism: Principles, Practices, Philosophies* (12 ed.). Hoboken NJ: John Wiley & Sons.
- Grönroos, C. (1984). "A Service Quality Model and its Marketing Implications". *European Journal of Marketing*, 18(4), 36 - 44.
- Kandampully, J. (1998). "Service quality to service loyalty: A relationship which goes beyond customer services". *Total Quality Management*, 9(6), 431-443.
- Kandampully, J. (2002). *Services Management: The New Paradigm in Hospitality*. Australia: Pearson Education Australia.
- Karatepe, O. M.; Yavas, U. & Babakus, E. (2005). "Measuring service quality of bank: Scale development and validation". *Journal of Retailing and Consumer Services*, 12, 373-383.
- Kelley, S. w. & Turley, L. W. (2001). "Consumer perceptions of service quality attributes at sporting events". *Journal of Business Research*, 54(2), 161-166.
- Kim, W.; Jun, H. M.; Walker, M. & Drane, D. (2015). "Evaluating the perceived social impacts of hosting large-scale sport tourism events: Scale development and validation". *Tourism Management*, 48, 21-32.

- Kline, p. (1994). *An Easy Guide to Factor Analysis*. London: Routledge.
- Kline, R. (2011). *Principles and Practice of Structural Equation Modeling* (Third ed.). New York: The Guilford Press.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York: The Guilford Press.
- Ko, Y. J. & Pastore, D. L. (2004). "Current issues and conceptualizations of service quality in the recreation sport industry". *Sport Marketing Quarterly*, 13(3), 158-166.
- Kouthouris, C. & Alexandris, K. (2005). "Can service quality predict customer satisfaction and behavioral intentions in the sport tourism industry? An application of the SERVQUAL model in an outdoors setting". *Journal of Sport Tourism*, 10(2), 101-111.
- Kurtzman, J. & Zauhar, J. (2003). "A Wave in Time -The Sports Tourism Phenomena". *Journal of Sport & Tourism*, 8(1), 35 - 47.
- Kyle, G. T.; Theodorakis, N. D.; Karageorgios, A. & Lafazani, M. (2010). "The Effect of Service Quality on Customer Loyalty within the Context of Ski Resorts". *Journal of Park and Recreation Administration*, 28(1), 1 - 15.
- Laroche, M.; Ueltschy, L. C.; Abe, S.; Cleveland, M. & Yannopoulos, P. (2004). "Service Quality Perceptions and Customer Satisfaction: Evaluating the Role of Culture". *Journal of International Marketing*, 12(3), 58 - 85.
- Lehtinen, U. & Lehtinen, J. R. (1991). "Two Approaches to Service Quality Dimensions". *The Service Industries Journal*, 11(3), 287 - 303.
- Mackay, K. J. & Crompton, J. L. (1988). "A conceptual model of consumer evaluation of recreation service quality". *Leisure Studies*, 7(1), 41-49.
- Martínez, J. A. & Martínez, L. (2010). "Some insights on conceptualizing and measuring service quality". *Journal of Retailing and Consumer Services*, 17, 29 - 42.
- Nice, B. (2004). *golf in meetings, incentives, conventions, exxhibitions (mice) tourism: perceptions of meeting planners*. A thesis presented to the graduate school of the university of Florida in partial fulfillment of the requirements for the degree of master of science in recreational studies. University of Florida.
- Parasuraman, A.; Zeithaml, V. A. & Berry, L. L. (1985). "A conceptual model of service quality and its implications for future research". *Journal of Marketing*, 49(4), 41 - 50.
- Parasuraman, A.; Zeithaml, V. A. & Berry, L. L. (1988). "SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality". *Journal of retailing*, 64(1), 12 - 40.

- Ritchie, B. W. & Adair, D. (2004). "Sport tourism: An introduction and overview". In B. W. Ritchie, & D. Adair, *Sport tourism: Interrelationship, impacts and issues* (pp. 1 - 29). Tonawanda NY: Channel View Publications.
- Seth, N. & Deshmukh, S. (2005). "Service quality models: a review". *International Journal of Quality & Reliability Management*, 22(9), 913-949.
- Shonk, D. J. (2007). "Perceptions of service quality, satisfaction and intent to return among tourists attending a sporting event". *North American Society for Sport Management Conference (NASSM 2007)*.
- Shonk, D. J. & Chelladurai, P. (2008). "Service Quality, Satisfaction, and Intent to Return in Event Sport Tourism". *Journal of Sport Management*, 22, 587-602.
- Standeven, J. & De Knop, P. (1999). *Sport tourism, Champaign. IL: Human Kinetics*.
- Theodorakis, N. D.; Koustelios, A.; Robinson, L. & Barlas, A. (2009). "Moderating role of team identification on the relationship between service quality and repurchase intentions among spectators of professional sports". *Managing Service Quality*, 19(4), 456 - 473.
- Thwaites, D. (1999). "Closing the gaps: service quality in sport tourism". *Journal of Services Marketing*, 13(6), 500 - 516.
- Tikander, J. (2010). *Traveller and fan identities of the Finnish football fans*. The Master's Thesis, University of Jyväskylä, Department of sport sciences.
- Turner, R. S. & Rosentraub, M. S. (2002). "Tourism, Sport and the Centrality of Cities". *Journal of Urban Affairs*, 24(5), 487 - 492.
- Weed, M. & Bull, C. (2009). *Sports tourism: Participants, policy and providers*. Oxford UK: Elsevier Butterworth-Heinemann.
- Yildiz, S. M. & Kara, A. (2012). "A re-examination and extension of measuring perceived service quality in Physical Activity and Sport Centres (PSC): QSport-14 scale". *International Journal of Sports Marketing & Sponsorship*, 189-208.