

# The Relationship Between Participant Satisfaction, Perceived Service Quality, and Expenditures in A Sports Event

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**Abstract.** This research aimed to propose a model for the enhancement of service quality of the 2nd Thailand Open Master Games 2022 in Thailand. Data were collected from a sample survey of 583 participants i.e., athletes, referees, coaches, officials, team managers, volunteers, and all involved. A simple sampling was used. A particular focus of the study is if and how participant satisfaction influences participant' expenditures. It is hypothesized and argued that expenditure depends on satisfaction relative to perceived service quality. Descriptive and regression analytical techniques were employed for data analysis. Three primary dimensions in service quality were identified in the sports context: sporting event quality, staff quality, and venue and sports facilities quality. It is empirically found that perceived service quality affected participants' satisfaction and those participants with satisfaction greater than their perceived service quality during the visit spend significantly more. The management in sports events could apply the findings in delivering services with a view to boosting customers. A limitation of this study, however, is that the satisfaction is not measured systematically taking into consideration several dimensions of satisfaction that should be addressed in future research.

**Key words:** participant satisfaction, participant expenditures, perceived service quality, sport event

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## INTRODUCTION

The point of the determinants of sports participants' expenditures has been researched on widely. One reason is of course that sports participants and event participants generate income and the knowledge about these determinants is of value for destination and event management (Mortazavi, 2021). Moreover, in the business sector has shown a growing interest in total quality management, a concept that has become universally known and applied to practically all areas of management in organizations and businesses in the service sector (Talib, Rahman, & Qureshi, 2013; Bouranta et al., 2019). Similar studies have been conducted, such as the one by Borger et al. (2016), which in line the study of Bang, Munehiko & Shintaro (2020), it can be said that a positive effect of participant satisfaction on expenditure has been found, however, find a negative effect of satisfaction on total expenditures (Case et al., 2013). Also, there are fewer studies on the expenditure patterns for sport events.

Hosting sport events are seen as having a positive impact on the local, economy, and usually attracts intense venues sport events (Dixon, Backman, Backman, & Norman, 2012). Basically, these benefits are reflected in terms of enhancement of the image of the city and/or the environment in economic terms (direct income) and in the revitalization and development of the general socio-economic fabric of the territory and possibly also improving quality of life (Jiménez-Naranjo, et al., 2016).

Sports events are activities that are organized within a program for accomplishing the management of seminar, meeting, course, panel, camp, and all sorts of sports events that are organized to serve the purpose of sports competitions (Gokce & Bozyigit, 2020). Sports events are special events that include complexity, competition, multi-purposes, objects, and products which have strong organizational culture and potential marketing history. Since sports events have the potential to affect society and culture, nature and environment, politics, tourism, and economy, lots of countries want to organize sports events (Papadimitriou, Kaplanidou & Papacharalampous, 2016).

Sport participant expenditure directly related to the sport event itself, and it is one of the most important impacts to the positive promotive effect. Thus, knowledge of the contributing factors of participant expenditure in sporting events is important for planning, marketing and policy making. From the point of view of the hosting city it is crucial to attract visitors that spend most. As noted by Mortazavi (2021), knowledge of the expenditure behavior of the sport participants makes the marketing efforts most efficient and found that sport participants with satisfaction greater than their expectations prior to the visit spend significantly more.

An analysis of literature reveals studies of quality in sport services quality is a direct precursor to customer satisfaction (Theodorakis, Kambitsis & Laios, 2001; Thamnopoulos, Tzetzis & Laios, 2012; Biscaia, Masayuki, & Kim, 2021). Moreover, Shonk, et al. (2017) emphasize that the event quality of the sport event was good, and that the technical factors and service staff received the highest evaluations, however, conclude that there are a significant correlation between event quality, satisfaction, and intent to return of spectators attending an international sport event. Besides, it can be argued that satisfaction with the visit correlates with expenditure or participant satisfaction in turn is related to visitor perceived service quality. Participant satisfaction has been defined based on the degree of fulfilment of expectations on a good or service (Gokce & Bozyigit, 2020). Perceived service quality may also be closely related to trip motivation, interest, and commitment.

Recently a few valuable contributions, have examined the effect of satisfaction on participant expenditures (Disegna & Osti, 2016; Jurdana & Frleta, 2017). However, none of the mentioned studies considers potential relationship between satisfaction, perceived service quality, and expenditure which as mentioned previously is important in the general case of participant satisfaction. Also, unlike the other few studies on the relationship between participant satisfaction, the possibility of endogeneity of satisfaction as a predictor for expenditures is taken into consideration. The endogeneity of participant perceived service quality is due to the possibility of a simultaneous relationship between satisfaction and expenditure. Moreover, there does not seem to exist studies that clearly relate participant satisfaction to perceived service quality when examining the effect of satisfaction on participant expenditure at a destination.

Therefore, the main purpose of the present study is to examine the relationship between satisfaction, perceived service quality, and expenditures in the 2nd Thailand Open Master Games. The satisfaction may depend on the quality of the services provided by the committee organizer in the 2nd Thailand Open Master Games, 2022, which was held in Thailand, between January 8-16, 2022. It is recognized that satisfaction, perceived service quality, and expenditures interact. Data were collected through an in-person survey of the visitors to this event. A random sample of visitors was approached and asked to give information on their socioeconomic characteristics, expenditures, and experiences. Information from 583 usable responses is the basis for the econometric analyses. The results may also be relevant for sport event organizers for identifying a deeper understanding of the relationship between satisfaction, perceived service quality and spending. However, a limitation of this study is the way satisfaction has been measured. In the survey used, the respondents were asked to rate their overall level of satisfaction. A better way to measure satisfaction is considering several dimensions that underly and construct the overall satisfaction.

## **METHOD**

This study was survey research design. Data for this study come from an onsite survey during the 2nd Thailand Open Master Games 2022 on January 8-16, 2022. The fieldwork was carried out using a self-administered questionnaire, with the survey or present. Participants were asked to complete the survey and around 15 minutes were needed to complete the questionnaire. A response of 'yes' to this questionnaire qualified respondents to begin the survey. A response of 'no' to this questionnaire

disqualified respondents from the survey. Once the survey was completed, respondents were thanked for their participation. The managers of the various sports (14 sports) that took part in the study were asked for their permission before any data were gathered. Similarly, all sport participants voluntarily. As all surveys were anonymous and we did not collect contact information of respondents and non-respondents, we had no way of further contact with trail users. Therefore, people who refused to participate in the survey, non-responders, were not accounted for in analysis except for calculating the overall survey response rate.

Data were gathered using the questionnaire (Srisiri, et al., in press). A questionnaire was used containing 47 Likert alternative response items, ranging from 1 (strongly disagree) to 5 (strongly agree), focusing on two areas of evaluation: (1) perceived service quality: The 32 items were grouped into three factors (sports event, staff, and venue and sport facilities) after an explanatory factorial analysis was carried out explaining 67.89% of variance. Total Cronbach's alpha reliability was .881. (2) satisfaction: the 14 items were grouped into three factors (sports event, staff, and venue and sport facilities) after an explanatory factorial analysis was carried out explaining 67.23% of variance. Total Cronbach's alpha reliability was .836.

Moreover, the questionnaire was designed containing questions about the participants' socioeconomic characteristics, expenditures and their experiences. More specifically, the questionnaire asked the respondents about the gender, age, level of education, homeland, income per month, occupation, channel received this sports event, how many days the respondent had visited the games, whether the respondent had attended a 1st Thailand Open Master Games previously and if so how many, and the place of residence. The respondents were also asked to state their level of satisfied they were in general and more specifically regarding how they perceived the quality of, for example, facilities and the behaviour of the staff.

The method for data collection was an on-site self-complete questionnaire study. The questionnaires were distributed to respondents using a simple random sampling strategy. Questionnaires were handed out to approximately every fifth participant during a pre-specified time interval within a given location. Time intervals during the day as well as locations were randomly selected according to a pre-specified scheme. In total about 2,000 attended the competitions that lasted 8 days.

Descriptive and regression analytical techniques were employed for data analysis. Mean and standard deviations were calculated to describe the general characteristics of respondents. A simple linear regression analysis was performed to determine an equation (model) that would explain how participant satisfaction influences participant' expenditures. It is hypothesized and argued that expenditure depends on satisfaction relative to perceived service quality.

## **RESULT AND DISCUSSION**

### **Sample characteristics**

After adjusting for blank, incomplete, a few fake answers and excluding respondents under 18 years old, a total of 584 usable responses were collected. These subjects 67.23% were men and 32.77% were women, with a mean age of  $44.29 \pm 15.10$  yrs, and with a mean income per month of  $16,450 \pm 2,467$  bath. Of these subjects, 64.78% had undergraduate education, 17.88% had secondary education and 16.28% had higher undergraduate education. The occupation of these subjects, 31.38% were government officer, 26.93% were private business, 18.01% were students, 13.21% were private employee, and 9.97% were other, respectively. In terms of homeland, 66.15% come from south region, 22.28% come from central region, and 4.66% come from northeast, and east region. Most of these subjects received the sports event from Facebook 22.34%, Line 19.32%, and Website 19.10%. A total of 87.93% were involved in this event for 2-5 days, 8.47% between 6-10 days, and the remaining 3.6% less than a day. 93% of the sample visited the games at least one such day.

### **Participant expenditure**

Participant expenditure, is defined as the total spending per day, in Thai, by the individual visitor on lodging, restaurant expenditures, food (snacks, drinks, etc.), shopping (clothes, souvenirs, ski equipment, etc.), local travels (bus tickets, taxi fares etc.). The average daily expenditure is 550 bath with a standard deviation of 91 indicating a large degree of variation. 48.27% of the sample are non-locals. These have been identified according to the distance travelled. Those who have travelled more

than 100 km (one way) to get to the games in Songkha are defined as non-locals.

**Perceived Service Quality**

The perceived service quality consisted of three group factors, i.e., sports event, staff, and venue and sport facilities. The mean assessment of perceived service quality obtained with the sum of items in the scale was good: 4.07±.62 out of a maximum of 5. The service staff (4.08±.71), & service venue and sport facilities dimension (4.08±.66) was rated the highest by participants, followed by the service sports event factor, respectively.

**Satisfaction toward this event**

Participants satisfaction consisted of three group factors, i.e., sports event, staff, and venue and sport facilities. The mean assessment of satisfaction obtained with the sum of items in the scale was good: 4.14±.58 out of a maximum of 5. The staff dimension obtained the highest level of satisfaction (4.17±.67), follow by sports event dimension, and venue & sports facilities obtained the lowest level of satisfaction, respectively.

**Model specification and estimation results**

The first model used to predict participant satisfaction (Table 1) depend on perceived service quality variables, with F=203.565; p<.05, confirming a significant linear relationship between the dependent variable and the independent variables entered. The explained variance was 29.7%.

$$\text{Eq. 1 } y = \alpha + \beta x$$

Index y is the participants satisfaction, x is perceived service quality as independent variables.

**Table 1.** Simple regression model to predict satisfaction based on dimation of perceived service quality

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.545 <sup>a</sup>	.297	.296	.57852	.003	14.715	1	580	.022

a. Predictors: (Constant), perceived service quality  
 b. Dependent Variable: satisfaction

The second model used to predict expenditures (Table 2) depend on participant satisfaction variables, with F=148,408; p<.05, confirming a significant linear relationship between the dependent variable and the independent variables entered. The explained variance was 26.9%.

$$\text{Eq.2 } y = \alpha + \beta x$$

Index y is the expenditure, x is participant satisfaction as independent variables.

**Table 2.** Simple regression model to predict expenditure based on dimation of satisfaction

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df 1	df 2	Sig. F Change
1	.518 <sup>a</sup>	.269	.267	.85538	.001	19.15	1	456	.042

a. Predictors: (Constant), satisfaction  
 b. Dependent Variable: expenditure

The perceived service quality was evaluated positively, with a mean score of  $4.07 \pm .62$  out of a maximum of 5 for all dimensions. The dimensions of service staff and service venue & sport facilities dimension were rated the highest by participants, followed by the service sports event factor, respectively. These outcomes are in line with the findings of Rial et al. (2010), who recorded a good score for staff assessment, which was higher than the score for the other factor considered (facilities). Mañas et al. (2008) also reported a more positive evaluation in aspects relating to the human factor than in other dimensions, an outcome also found by Nuviala, et al. (2012).

According to the results, participants assessed satisfaction more positively than service quality (Omar, Saadan, and Seman, 2015; Han, et al., 2021; Biscaia, Yoshida & Kim, 2021; Zygiaris, et al., 2022). The staff dimension obtained the highest level of satisfaction ( $4.17 \pm .67$ ) and scored the highest for perceived service quality. Venue & sports facilities dimension, however, which scored highest for perceived service quality, but scored the lowest for satisfaction. These outcomes could be explained based on the peculiarities of quality as a lasting attitude over time, and satisfaction as a transitory judgement of a specific service (Zhou, et al., 2019), which suggests that judgement of satisfaction depends to a large degree on emotional aspects (Suchánek & Králová, 2019).

Data used in the present study, however, contain information about the stated level of satisfaction of the participants and also their perceived service quality. Therefore, the influence of participants satisfaction on participants expenditure can be examined controlling for perceived service quality. These outcomes reinforce the positive relationship between participant satisfaction and perceived service quality. Furthermore, it is recognized that participants satisfaction relative to perceived service quality the participant had prior to the visit is a relevant factor determining expenditures. These outcomes are in line with study of Mortazavi (2021), which found that visitors with satisfaction greater than their expectations prior to the visit spend significantly more.

Discussion One specific focus of the present study was to examine the effect of participant satisfaction on participant expenditure in the 2nd Thailand Open Master Games 2022. It is found that as satisfaction exceeds perceived service quality, expenditures increase significantly. A positive effect of participant satisfaction on expenditure has also been found by González, Comesaña & Brea (2007); Disegna & Osti (2013); Borger et al. (2016); Jurdana & Frleta (2017); Salgado-Barandela, Sánchez-Fernández & Barajas (2018); Mortazavi (2018); Bang, Munehiko & Shintaro (2020), however, find a negative effect of satisfaction on total expenditures (Case, et al., 2013; Sato, et al., 2014).

Furthermore, they do not seem to consider that what may be most relevant is the satisfaction level relative to the perceived service quality. The result from the present study confirms the theoretical conjecture and practical experience that it is important that the service qualities of participants are met. One implication from the present study is that event managers must make sure that they can deliver what they promise when promoting the event and building up service qualities. These outcomes are not consistent with study of Barquet, Brida, Osti, and Schubert (2011) use a questionnaire survey of day-visitor expenditure at the Biathlon World Cup 2009 in Antholz-Anterselva (in the Trentino-South Tyrol region) and find that income level, the geographical origin of the spectator and the size of the travel group are the most important factors that influence total expenditure.

## CONCLUSION

How economically successful a sports event, depends heavily on the expenditures of the sports event participants. Knowledge of the quantitative effects of factors influencing participant expenditure is therefore very important for sport event organizers, even if for many of these factors, theoretical and common sense reasoning inform about the direction of the effects. The present study has been concerned with what factors, and by how much, influence expenditures of participants to the 2nd Thailand Open Master Games in Thailand, January 8-16, 2022. There are many studies on the determinants of visitor spending in general. Relatively fewer studies, however, exist for sport events. Furthermore, there seem to be very few studies that take satisfaction explicitly into consideration as a predictor for participant expenditure. Those that do this, however, have not taken the possible endogeneity of satisfaction into account. The present study does this. Moreover, the satisfaction effect is related to the perceived service quality. This is based on the idea that satisfaction is experienced when the actual experience surpasses expectations.

Since satisfaction is a function of quality of services it is imperative that the sport event managers

and local service suppliers provide high quality service which in turn generate profits. Also, participant satisfaction is important for the hosting city, and its tourism businesses, to attract revisits. Another relevant aspect is that satisfaction affects expenditures positively even when income is controlled for. All else, in particular income, equal a satisfied participant spends more.

The limitations of this study are that the results are specific for the particular context and sample. The sampling procedure does not guarantee over- or undersampling of specific groups of participants. Further research on similar sport events would make it possible to compare and assess the consistency of the results from the present study.

Another issue for future research is the measurement of participant satisfaction itself which is not done in a systematic way taking into consideration different dimensions of satisfaction. Also, to get more in depth and qualitative insights it would likely be better to follow up and ask the participants, after the sport event, about their satisfaction providing more time for reflection.

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