



Asian Journal of Management and Commerce

E-ISSN: 2708-4523

P-ISSN: 2708-4515

Impact Factor (RJIF): 5.61

AJMC 2025; 6(2): 1243-1253

© 2025 AJMC

www.allcommercejournal.com

Received: 05-07-2025

Accepted: 07-08-2025

Nguyen Dinh Long

Department of Sport

Management, National Taiwan

University of Sport, Taichung,

Taiwan

The impact of service quality on satisfaction and behavioral intentions of marathon event: Evidence from The Ho Chi Minh City (HCMC) marathon event scale, Vietnam

Nguyen Dinh Long

DOI: <https://www.doi.org/10.22271/27084515.2025.v6.i2n.849>

Abstract

Purpose: This study investigates the impact of Service Quality (SQ) on Satisfaction (SAQ) and Behavioral Intentions (BIQ) among participants of the Ho Chi Minh City Marathon event.

Research Subjects: The survey targeted marathon participants, yielding 420 valid responses.

Methodology: The research applied a combination of descriptive statistics, reliability analysis, exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and Partial Least Squares Structural Equation Modeling (PLS-SEM) to validate the measurement and structural models.

Findings: The findings reveal that service quality (SQ) significantly influences participant satisfaction. Among the six dimensions, Physical Environment Quality (PEQ) ($\beta = 0.421$, $p < 0.001$, $f^2 = 0.380$) and Information Quality (IFQ) ($\beta = 0.309$, $p < 0.001$, $f^2 = 0.213$) emerged as the strongest predictors, followed by Outcome Quality (OQ), Game Quality (GQ), and Interaction Quality (ITQ). In contrast, Social Quality (SoQ) did not show a significant effect. Satisfaction was found to be the strongest predictor of behavioral intention ($\beta = 0.726$, $p < 0.001$, $R^2 = 0.528$) and acted as a key mediator between service quality dimensions and behavioral intentions.

Keywords: Event service quality, service quality, satisfaction, behavioral intentions, marathon events, marathon runners, sport events

Introduction

Sporting events have rapidly emerged as popular recreational activities that attract tourists (Gibson 1998, Higham and Hinch 2010, Kiani and Rizvandi 2020) [21, 29, 42], while both sport and tourism rank among the most favored leisure experiences globally (Kaplanidou and Vogt 2010, Hulteen, Smith *et al.* 2017, Higham and Hinch 2018) [41, 33, 30]. Cities and event organizers increasingly prioritize expanding these events for their role in enhancing lifestyles, health awareness, and sports tourism (Calabuig-Moreno, Crespo-Hervas *et al.* 2016, Barros Filho, Pedroso *et al.* 2021, Biscaia, Yoshida *et al.* 2023, Bahir, Habibi *et al.* 2025) [10, 4, 6, 3]. One of the greatest methods to set a city or community apart from other venues is to host a sporting event (Chalip, Green *et al.* 2003, Dimanche 2003, Chalip and McGuirly 2004, Prayag and Grivel 2014, Lee, Parrish *et al.* 2015) [11, 17, 12, 66, 49]. No matter the scale, holding a sporting event has several advantages, including (a) raising awareness of the area, (b) enhancing its reputation, and (c) boosting future inbound traffic (Dimanche 2003, Dees, Walsh *et al.* 2022, Greenwell, Danzey-Bussell *et al.* 2024) [17, 16, 24]. According to (Porter and Chin 2012, Sterken 2013) [65, 72], the main justification for holding a sporting event is economic gain because the event's outcome frequently determines how resources are allocated in the future and hosting a sporting event has three key advantages: (a) boosting local entertainment, (b) boosting community pride, and (c) boosting the local economy. In recent years, mass-participation events such as marathons, halfmarathons, ultramarathons, cycling races, and triathlons have gained global popularity and are increasingly organized to professional standards (Robb 2016, Malchrowicz-Moško and Pocza 2018, Weinberg, Stevens *et al.* 2019, Malchrowicz-Moško, Gravelle *et al.* 2020, Görgens, Hertelendy *et al.* 2025) [68, 52, 53, 23]. These events function not only as athletic competitions but also as platforms for commercial and leisure experiences, thereby enhancing participant satisfaction, quality of life, and health-related behaviors (Park, Yoh *et al.* 2021, McVinnie, Plateau *et al.* 2023) [63, 54]. "Marathon events are recognized as one of the most socially impactful and

Corresponding Author:

Nguyen Dinh Long

Department of Sport

Management, National Taiwan

University of Sport, Taichung,

Taiwan

widely practiced activities in major cities worldwide (Hautbois, Djaballah *et al.* 2020) ^[28]. Therefore, companies and event organizers place significant emphasis on service quality as a critical determinant in ensuring the overall success and effectiveness of events (Parasuraman, Zeithaml *et al.* 1988, Brady and Cronin Jr 2001, Yoshida and James 2010) ^[62, 9, 83]. Previous studies have highlighted that service quality plays a critical role in attracting community participation, shaping satisfaction, and fostering participants' intention to return (Theodorakis, Kambitsis *et al.* 2001, Shonk and Chelladurai 2008, Kaplanidou and Vogt 2010, Yoshida and James 2010, Duan, Mastromartino *et al.* 2021) ^[74, 41, 83, 69, 19].

Service quality is widely recognized as a critical factor shaping participant satisfaction and behavioral intentions in sport events (Parasuraman, Zeithaml, & Berry, 1988; Yoshida & James, 2010) ^[62, 83]. Previous studies confirm that satisfaction mediates the relationship between service quality and revisit intention (Theodorakis *et al.*, 2001; Kaplanidou & Vogt, 2010) ^[74, 41]. However, in the Vietnamese marathon context, empirical research on measurement validation remains limited. While international studies emphasize multiple service quality dimensions including interaction quality, program quality, and social quality Vietnamese studies often focus narrowly on general service quality without robust validation procedures. To address this gap, this study aims to validate measurement scales for service quality, satisfaction, and behavioral intentions in marathon events in Ho Chi Minh City.

2. Literature Review

2.1 Service Quality

Service Quality in Sport Events is a foundational construct in sport management and has been recognized as a key determinant in attracting participants and shaping their experiences events (Shonk and Chelladurai 2008, Sivarajah 2019) ^[69, 70]. In the sport and tourism context, service quality reflects participants' overall evaluation of event-related services and facilities (Bitner and Hubbert 1994, Jeong, Kim *et al.* 2019) ^[7, 36]. Service quality has been conceptualized in multiple ways, ranging from the SERVQUAL model (Parasuraman, Zeithaml *et al.* 1988) ^[62] with five dimensions reliability, assurance, tangibles, empathy, and responsiveness to the SERVPERF model, which focuses solely on perceived performance (Cronin & Taylor, 1992; Gholipour & Moradi, 2020) ^[15]. In sport events, researchers have adapted these frameworks into specialized models. The Sport Event Quality Scale (SEQSS) integrates program quality, interaction quality, outcome quality, and physical environment quality. Recent refinements, such as the SEQSS-SIM, improve measurement practicality while maintaining validity. Similarly, (Brady and Cronin Jr 2001) ^[9] proposed a three-dimensional model of physical environment quality, interaction quality, and outcome quality, widely used in sports tourism research. For running and marathon contexts, studies identify unique factors such as course quality, administrative quality, and venue characteristics (An, Harada *et al.* 2020, Yamaguchi and Yoshida 2022, Hou, Zhang *et al.* 2025) ^[83]. Evidence suggests that event quality dimensions not only influence participants' evaluations but also enhance satisfaction and future behavioral intentions ((Theodorakis, Kaplanidou *et al.* 2015, Ma and Kaplanidou 2021) ^[77]. Building on prior

frameworks, the current study conceptualizes service quality across six dimensions: 1. Information Quality - clarity, accuracy, and timeliness of information (Parasuraman, Zeithaml *et al.* 1988, Shonk and Chelladurai 2008) ^[62, 69]. 2. Game/Event Quality - attractiveness, fairness, and professionalism of the event (Brady and Cronin Jr 2001, Yoshida and James 2010) ^[9, 83]. 3. Interaction Quality - responsiveness and professionalism of organizers, staff, and volunteers (Ko and Pastore 2005). 4. Outcome Quality - tangible and intangible benefits such as achievement and memorable experiences (Cronin Jr and Taylor 1992) ^[15]. 5. Social/Community Quality - participants' sense of belonging, engagement, and social interaction (Yoshida and James 2010, Inoue and Havard 2014, Yoshida, Heere *et al.* 2015) ^[83]. 6. Physical Environment Quality - adequacy, safety, cleanliness, and comfort of facilities (Wakefield and Blodgett 1996) ^[78]. This multidimensional perspective provides a comprehensive framework for understanding marathon participants' evaluations of service quality.

2.2 Satisfaction in Sport Events

Satisfaction is one of the most extensively studied constructs in consumer behavior and event management. In general terms, satisfaction represents a positive emotional response resulting from the fulfillment of expectations (Oliver, Rust *et al.* 1997, Oliver 2000, Oliver 2014) ^[61, 59, 60]. In marketing, satisfaction is a central predictor of loyalty and repurchase behavior (Kotler and Keller 2016, Ndubisi and Nwankwo 2019) ^[47, 56]. In the sport context, satisfaction has been defined as the extent to which spectators' or participants' experiences meet or exceed expectations across different touchpoints (Shonk and Chelladurai 2008, Biscaia, Yoshida *et al.* 2023) ^[6, 83, 69]. Research indicates that satisfaction in sport events is multidimensional, encompassing game quality, service quality, atmosphere, and organizational efficiency (Zhang, Pease *et al.* 2004, Koo 2009) ^[84, 45]. For participants in mass-sport events such as marathons, satisfaction also reflects personal performance, safety, and logistical management (Kaplanidou and Gibson 2010, Du, Jordan *et al.* 2015) ^[38]. Moreover, satisfaction is strongly associated with behavioral outcomes such as word-of-mouth recommendations, re-attendance, and long-term engagement (MacIntosh and Parent 2017, Gokce and Bozyigit 2020) ^[51, 22]. Empirical studies confirm that higher satisfaction levels lead to stronger loyalty, particularly in recurring events like marathons (Kaplanidou and Vogt 2007, Moreno, Prado-Gascó *et al.* 2015) ^[40, 55].

2.3 Behavioral Intention in Sport Events

Behavioral intention refers to an individual's readiness to engage in future behavior, often measured through intentions to revisit, recommend, or engage in positive word-of-mouth (Spears and Singh 2004, Ladhari 2009) ^[71, 48]. Favorable behavioral intentions include repeat participation and advocacy, while unfavorable intentions involve avoidance or negative communication (Wilson, Zeithaml *et al.* 2016) ^[80]. In sport events, behavioral intention is a crucial indicator of long-term sustainability, as it reduces marketing costs and strengthens community engagement (Reichheld 1996, Chen and Chen 2010) ^[67, 14]. Research has consistently found that satisfaction and service quality are the strongest predictors of behavioral intention in both mega-events and smaller local events (Kaplanidou, Jordan *et al.* 2012, Koo, Byon *et al.* 2014) ^[39, 46]. For

marathon participants, behavioral intentions can be conceptualized in two forms: (a) Revisit intention - the likelihood of participating in future editions of the event. (b) Recommendation intention - the willingness to recommend the event to peers, including those not actively engaged in running. These constructs reflect both attitudinal and behavioral loyalty, which are critical to ensuring the continued success of sport events in competitive contexts (Boulding, Kalra *et al.* 1993, Park and Njite 2010)^[64, 8].

The purpose of this study is to examine the impact of service Quality (SQ) on satisfaction, and subsequently on behavioral intentions of participants in the Ho Chi Minh City Marathon. The research aims to clarify the relationships between the dimensions of event service quality (including Information Quality (IFQ), Game Quality (GQs), Interaction Quality (ITQ), Outcome Quality (OQ), Social/Community Quality (SoQ), and Physical Environment Quality (PEQ) and participants' satisfaction, while also testing the role of satisfaction in fostering participants' intentions to attend and return to future marathon events. Furthermore, Satisfaction is expected to positively influence Behavioral Intentions. Accordingly, the following hypotheses are formulated.

2.3.1 Research Questions (RQs)

- **RQs1:** How do different dimensions of event service quality (IFQ, GQ, ITQ, OQ, SoQ, PEQ) affect participant satisfaction in a marathon event?
- **RQs2:** Does participant satisfaction mediate the relationship between event service quality and behavioral intention in the context of marathon events?
- **RQs3:** Which dimension of event service quality has the strongest impact on participant satisfaction and behavioral intention in the HCMC Marathon event?

2.3.2 Hypothesis (H)

H₁ - H₆: Direct effects on Satisfaction (SAQ)

- **H₁:** Information Quality (IFQ) has a positive impact on participants satisfaction (SAQ).
- **H₂:** Game quality (GQ) has a positive impact on participants satisfaction (SAQ).
- **H₃:** Interaction quality (ITQ) has a positive impact on participants satisfaction (SAQ).
- **H₄:** Outcome quality (OQ) has a positive impact on participants satisfaction (SAQ).
- **H₅:** Social & community quality (SoQ) has a positive impact on participants satisfaction (SAQ).
- **H₆:** Physical Environment quality (PEQ) has a positive impact on participants satisfaction (SAQ).

H₇: Satisfaction (SAQ) -> Behavioral Intention (BIQ)

H₇: Participants Satisfaction (SAQ) positively influences Behavioral intention (BIQ).

H₈: Indirect effects on Behavioral Intention (BIQ)

H₈: Participant satisfaction mediates the relationship between event service quality dimensions (IFQ, GQ, IQ, OQ, SoQ, PEQ) and Behavioral Intention (BIQ).

2.3.3 Research Objectives (ROs)

- **(ROs1):** To examine the direct effects of event service quality dimensions (IFQ, GQ, ITQ, OQ, SoQ, PEQ) on participant satisfaction.

- **(ROs2):** To investigate the direct impact of participant satisfaction on behavioral intentions in the context of the marathon event.
- **(ROs3):** To assess the mediating role of participant satisfaction in the relationship between event service quality dimensions and behavioral intentions.
- **(ROs4):** To provide managerial and practical implications for event organizers to enhance participant satisfaction and encourage positive behavioral intentions in future marathon events.

3. Material and Method

3.1 Measurement Scales and Questionnaire

This study employed established measurement scales adapted from prior research to fit the Vietnamese marathon context (Oliver 1980, Parasuraman, Zeithaml *et al.* 1988, Chelladurai and Chang 2000, Theodorakis, Alexandris *et al.* 2013, Theodorakis, Kaplanidou *et al.* 2015, Theodorakis, Kaplanidou *et al.* 2019)^[58, 62, 75]. Service Quality (SQ) was conceptualized as a second-order construct, measured across six dimensions with 42 items: (IFQ) Information Quality (5 items), (GQ) Game Quality (6 items), (ITQ) Interaction Quality (6 items), (OQ) Outcome Quality (5 items), (SoQ) Social/Community Quality (6 items), and (PEQ) Physical Environment Quality (6 items), (SAQ) Satisfaction (4 items) and (BIQ) Behavioral Intentions (4 items) were also included. All items were measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree).

3.2 Research Design

This research adopts a quantitative approach through a questionnaire survey. The quantitative method is selected to operationalize and measure abstract constructs (service quality, satisfaction, and behavioral intention) using standardized scales. The research procedure involves the following steps: (1) developing measurement scales based on prior studies; (2) designing the questionnaire; (3) conducting the survey with marathon participants; and (4) processing and analyzing the data using SPSS and SmartPLS-SEM.

3.3 Research subjects and scope

The study targeted runners participating in the HCMC Marathon 2024. A screening question was included to distinguish runners from spectators: "Are you participating in this marathon course?" with two possible responses: "Yes" or "No." Only respondents who answered "Yes" were retained in the final sample. Both finishers and non-finishers of their registered distances were included. Consent for participation in this academic study was obtained during the event registration process. Data collection was carried out through two methods: (1) on-site surveys administered by the author and volunteers immediately after runners completed the race, and (2) online surveys distributed via a Zalo group created with participants' consent. Within approximately one week, the collected responses were reviewed and screened. The research was conducted at Ho Chi Minh marathon event in Ho Chi Minh City, Vietnam, during and immediately after the marathon event.

3.4 Sample and Data Collection

A total of 420 valid responses were collected from on-site surveys conducted immediately after the race, and from an online survey distributed via Zalo with participants' consent. Data were collected through Google forms, with reminders to improve response rates. Invalid, inaccurate, and incomplete surveys were excluded from the analysis.

3.5 Data analysis

The data analysis in this study was conducted using a combination of SPSS 26.0 and SmartPLS-SEM. The analysis process followed several sequential steps to ensure the validity and reliability of the measurement model and the robustness of the structural model (Bagozzi, Fornell *et al.* 1981, Tabachnick, Fidell *et al.* 2019, Hair, Astrachan *et al.* 2021) [2, 73, 26].

First, descriptive statistics were employed to summarize the demographic characteristics of respondents and provide insights into their participation in the HCMC Marathon event. This included frequency distribution, mean, and standard deviation, which offered an overview of the sample's profile ($n = 420$) (Bagozzi, Fornell *et al.* 1981, Hair, Astrachan *et al.* 2021) [2, 26].

Second, reliability analysis was performed using Cronbach's Alpha and Composite Reliability (CR). All constructs demonstrated Cronbach's Alpha and CR values above the recommended threshold of 0.70 (Nunnally and Bernstein 1994) [57], confirming internal consistency reliability.

Third, Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were conducted to assess the dimensionality and validity of the constructs. The results indicated that all items loaded significantly (> 0.70) on their respective constructs, and the Average Variance Extracted (AVE) values exceeded the 0.50 threshold (Bartlett 1954, Kaiser 1974, Bagozzi, Fornell *et al.* 1981, Hair 2009) [5, 37, 25] (Hair, Risher *et al.* 2019, Hair, Astrachan *et al.* 2021) [2, 27, 26], confirming convergent validity. Discriminant validity was verified using both the Fornell-Larcker criterion and the Heterotrait-Monotrait ratio (HTMT). Most constructs met the recommended thresholds (< 0.90), except for the

overlap observed between Outcome Quality (OQ) and Social Quality (SoQ), which requires careful interpretation. Finally, Partial Least Squares Structural Equation Modeling (PLS-SEM) was applied via SmartPLS to test the hypothesized relationships. The evaluation included path coefficients (β), significance levels (p -values), effect sizes (f^2), coefficient of determination (R^2), predictive relevance (Q^2), and variance inflation factors (VIF). The model fit indices, including SRMR (0.041 for the saturated model and 0.052 for the estimated model), NFI (0.884-0.887), and low d_ULS/d_G values, indicated an acceptable model fit (Hu and Bentler 1999) (Hair, Risher *et al.* 2019, Hair, Astrachan *et al.* 2021) [27, 26].

4. Results

The table 4.1 was showed, the mean scores of the observed variables ranged from 3.87 to 4.56 (on a 1-5 Likert scale). In general, respondents tended to agree at a high level with the survey items. The highest mean scores were found in So2 (4.56), BI2 (4.53), BI1 (4.51), IF2 (4.50), and So4 (4.42). The lowest mean scores were observed for SA2 (3.87), PE3 (3.88), and IT5 (3.89). Standard deviations ranged from 0.68 to 1.14, reflecting moderate dispersion around the mean and suggesting relatively strong agreement among respondents. Regarding skewness, all variables had negative values (ranging from -1.30 to -2.60), indicating leftskewed distributions. This implies that most participants selected higher response categories (4-5), which is common in studies on satisfaction and participation motivation. Kurtosis values were positive, with some being relatively high, such as BI2 (7.4), O3 (7.1), and BI1 (6.3). This reflects leptokurtic distributions, meaning responses were highly concentrated around the upper values. Overall, the findings demonstrate that respondents evaluated the studied constructs positively. However, the relatively high skewness and kurtosis indicate limited variability in some items. Nevertheless, this does not pose a major issue in PLS-SEM analysis (Hair *et al.*, 2021) [26].

Table 4.1: The descriptive statistics results reveal that the mean (M), Minium (Min), Maximum (Max), Std. Deviation (SD) values of the observed variables

Construct	Min	Max	M	SD	Skewness		Kurtosis	
					Statistic	Std. Error	Statistic	Std. Error
1. Information Quality (5 items) = IFQ (IF1 - IF5)								
IF1	1	5	4.29	1.023	-1.828	.119	2.940	.238
IF2	1	5	4.50	.954	-2.098	.119	3.524	.238
IF3	1	5	4.12	.995	-1.692	.119	2.822	.238
IF4	1	5	3.94	.930	-1.798	.119	3.543	.238
IF5	1	5	4.08	1.035	-1.705	.119	2.753	.238
2. Game Quality (6 items) = GQ (G1 - G6)								
G1	1	5	4.22	.839	-1.399	.119	2.487	.238
G2	1	5	4.17	.942	-1.571	.119	2.472	.238
G3	1	5	4.23	.890	-1.566	.119	2.799	.238
G4	1	5	3.93	.864	-1.866	.119	4.127	.238
G5	1	5	4.46	.912	-1.943	.119	3.173	.238
G6	1	5	4.02	.945	-1.643	.119	2.991	.238
3. Interaction Quality (6 items) = ITQ (IT1 - IT6)								
IT1	1	5	4.39	.906	-1.871	.119	3.421	.238
IT2	1	5	4.08	.927	-1.756	.119	3.713	.238
IT3	1	5	4.13	.835	-1.599	.119	3.540	.238
IT4	1	5	4.05	.813	-1.677	.119	4.055	.238
IT5	1	5	3.89	.857	-2.229	.119	5.559	.238
IT6	1	5	4.18	.839	-1.502	.119	2.865	.238

4. Outcome Quality (5 items) = OQ (O1 - O5)								
O1	1	5	4.37	.881	-2.006	.119	4.551	.238
O2	1	5	4.24	.807	-1.670	.119	3.977	.238
O3	1	5	3.96	.681	-2.182	.119	7.139	.238
O4	1	5	4.05	.779	-1.937	.119	5.645	.238
O5	1	5	4.25	.876	-1.931	.119	4.690	.238
5. Social & Community quality (6 items) = SoQ (So1 - So6)								
So1	1	5	4.31	.787	-1.728	.119	4.274	.238
So2	1	5	4.56	.759	-2.136	.119	4.726	.238
So3	1	5	4.22	.802	-1.724	.119	4.535	.238
So4	1	5	4.42	.776	-1.875	.119	4.751	.238
So5	1	5	4.06	.722	-1.804	.119	5.769	.238
So6	1	5	4.21	.748	-1.710	.119	5.317	.238
6. Physical Enviroment Quality (6 items) = PEQ (PE1 - PE6)								
PE1	1	5	4.11	.909	-1.305	.119	1.697	.238
PE2	1	5	4.06	.899	-1.391	.119	2.251	.238
PE3	1	5	3.88	1.002	-1.613	.119	2.367	.238
PE4	1	5	4.03	1.018	-1.451	.119	1.802	.238
PE5	1	5	4.22	1.000	-1.396	.119	1.236	.238
7. Satisfaction Quality (4 items) = SAQ (SA1 - SA4)								
SA1	1	5	4.15	1.037	-1.303	.119	.874	.238
SA2	1	5	3.87	1.141	-1.493	.119	1.498	.238
SA3	1	5	4.25	1.139	-1.621	.119	1.613	.238
SA4	1	5	4.02	1.075	-1.395	.119	1.376	.238
8. Bihavioral Intention Quality (4 items) = BIQ (BI1 - BI4)								
BI1	1	5	4.51	.810	-2.334	.119	6.294	.238
BI2	1	5	4.53	.894	-2.652	.119	7.401	.238
BI3	1	5	4.45	.747	-1.666	.119	3.124	.238
BI4	1	5	4.16	.812	-1.992	.119	6.000	.238

Note: Valid N (listwise): 420

Min = Minimum; Max = Maximum; SD = Std. Deviation; M = Mean;

At Table 4.2, The results were indicated that all measurement constructs satisfied the reliability and convergent validity requirements (Bagozzi, Fornell *et al.* 1981, Hair, Astrachan *et al.* 2021) ^[2, 26]. First, the Communalities values ranged from 0.624 to 0.833, exceeding the recommended threshold of 0.50 (Hair *et al.*, 2019) ^[27], indicating that the observed variables were well explained by their respective latent constructs. Second, Reliability analysis of the measurement scales to assess the internal consistency of the measurement scales, Cronbach's Alpha reliability test was performed for all (42 items) of eight constructs used in the study. According to Nunnally and Bernstein (1994) ^[57], Cronbach's Alpha was employed to assess the reliability of the measurement scales, a scale is considered acceptable when Cronbach's Alpha ($\alpha \geq 0.7$) and the (CITC) > 0.5 (Bagozzi, Fornell *et al.* 1981, Hair, Astrachan *et al.* 2021) ^[2, 26].

Third, The reliability and convergent validity, indicate that all measurement constructs met the accepted criteria. Specifically, Cronbach's Alpha values ranged from 0.877 (BIQ) to 0.945 (PEQ), exceeding the minimum threshold of 0.70 (Nunnally and Bernstein 1994) ^[57], which demonstrates strong internal consistency. Similarly, all CITC values were greater than 0.60, confirming that each indicator contributes meaningfully to its corresponding construct (Hair *et al.*, 2021) ^[26]. With regard to composite reliability, both ρ_a and CR (ρ_c) values exceeded 0.90 (ranging from 0.887

to 0.957), providing strong evidence of construct reliability. Furthermore, the AVE values ranged from 0.679 (SoQ) to 0.938 (SAQ), surpassing the recommended threshold of 0.50 (Fornell & Larcker, 1981), thereby supporting convergent validity. Therefore, all eight constructs (IFQ, GQ, ITQ, OQ, SoQ, PEQ, SAQ, BIQ) demonstrated satisfactory reliability and convergent validity, and can therefore be retained for subsequent structural model analysis. When comparing across constructs, several noteworthy points emerge. First, PEQ achieved the highest Cronbach's Alpha (0.945), indicating the strongest internal consistency among all constructs. In contrast, BIQ reported the lowest alpha (0.877), yet still well above the 0.70 benchmark (Nunnally & Bernstein, 1994) ^[57], thus confirming acceptable reliability. In terms of (AVE), SAQ exhibited the highest value (0.839), indicating superior convergent validity, meaning that the observed items strongly represented the underlying construct. Conversely, SoQ had the lowest AVE (0.679), though still above the 0.50 threshold (Fornell and Larcker 1981) ^[2], suggesting adequate but relatively weaker convergence compared to other constructs. Overall, all constructs demonstrated satisfactory levels of reliability and convergent validity. The differences in strength across constructs further highlight the distinctive measurement properties of each factor in the research model (Hair, Risher *et al.* 2019, Hair, Astrachan *et al.* 2021) ^[27, 26]

Table 4.2: Reliability and Convergent Validity of Measurement Constructs

Constructs	CITC			CR			
	Coms.	(Range)	(Total)	Cr ^a	rho_aa	rho_c	AVE
Outcome quality (OQ)	0.624 - 0.737	0.724 - 0.810	0.736	0.910	0.912	0.933	0.736
Social & Community quality (SoQ)	0.634 - 0.704	0.705 - 0.785	0.713	0.906	0.911	0.927	0.679
Physical environment quality (PEQ)	0.728 - 0.823	0.781 - 0.867	0.803	0.945	0.946	0.956	0.785
Satisfaction quality (SAQ)	0.705 - 0.726	0.824 - 0.863	0.853	0.936	0.936	0.954	0.839
Behavioral Intention quality (BIQ)	0.683 - 0.798	0.679 - 0.810	0.810	0.877	0.887	0.916	0.732
Information quality (IFQ)	0.779 - 0.833	0.821	0.842	0.943	0.943	0.957	0.815
Game quality (GQ)	0.694 - 0.815	0.751	0.751	0.933	0.940	0.947	0.749
Interaction quality (ITQ)	0.722 - 0.851	0.768	0.791	0.935	0.953	0.948	0.752

Note: Coms = Communalities; CITC = Corrected Item-Total Correlation; Cr^a = Cronbach's Alpha; (rho_a) = Composite reliability; (rho_c) = Composite reliability; CR = Composite Reliability; AVE = Average Variance Extracted

In table 4.3, The results of the KMO and Bartlett's Test show that the KMO value reached 0.952 (> 0.5), indicating that data were highly suitable for factor analysis. In addition, Bartlett's Test of Sphericity produced a Chi-Square value of $X^2 = 15935.930$, $df = 903$ and a statistically significant Sig. = 0.000 (< 0.05), confirming that the observed variables were sufficiently correlated for factor.

Table 4.3: KMO and Bartlett's Test

Bartlett's Test of Sphericity		.952
	Approx. Chi-Square	15935.930
	df	903
	Sig.	.000

The exploratory factor analysis (EFA) results indicate that six main factors were extracted with Eigenvalues greater than 1, following Kaiser's (1974) [37] criterion. These six

factors accounted for a total of 73.687% of the variance in the dataset.

Specifically, the first factor explained 38.389%, the second 11.885%, the third 10.353%, the fourth 5.898%, the fifth 4.355%, and the sixth 2.807%. After rotation (Rotation Sums of Squared Loadings), the variance was more evenly distributed: Factor 1 explained (19.022%), Factor 2 (14.264%), Factor 3 (11.689%), Factor 4 (11.066%), Factor 5 (11.053%), and Factor 6 (6.594%). The total explained variance exceeding 70% demonstrates a strong explanatory power of the EFA model, meeting the commonly recommended threshold in social sciences (Hair, Risher *et al.* 2019, Hair, Astrachan *et al.* 2021) [27, 26]. This confirms that the observed items were appropriately grouped into latent constructs and are suitable for subsequent CFA/SEM analyses.

Table 4.4: Total variance explained in exploratory factor analysis.

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% Ova.	Cu.%	Total	% Ova.	Cu.%	Total	% Ova.	Cu.%
1	16.123	38.389	38.389	16.123	38.389	38.389	7.989	19.022	19.022
2	4.992	11.885	50.274	4.992	11.885	50.274	5.991	14.264	33.286
3	4.348	10.353	60.627	4.348	10.353	60.627	4.909	11.689	44.975
4	2.477	5.898	66.525	2.477	5.898	66.525	4.648	11.066	56.041
5	1.829	4.355	70.880	1.829	4.355	70.880	4.642	11.053	67.094
6	1.179	2.807	73.687	1.179	2.807	73.687	2.769	6.594	73.687
7	0.725	1.726	75.413						
8	0.611	1.456	76.869						
9	0.581	1.383	78.252						
10	0.553	1.317	79.570						
11	0.506	1.206	80.776						
12	0.484	1.152	81.927						
13	0.479	1.140	83.067						
14	0.436	1.039	84.106						
15	0.412	0.981	85.087						
16	0.397	0.945	86.032						
17	0.371	0.883	86.915						
18	0.350	0.834	87.750						
19	0.340	0.810	88.560						
20	0.328	0.780	89.340						
21	0.307	0.732	90.072						
22	0.303	0.723	90.794						
23	.293	.698	91.492						
24	.275	.656	92.148						
25	.261	.621	92.768						
26	.252	.599	93.367						
27	.242	.577	93.944						
28	.228	.544	94.488						

29	.223	.530	95.019					
30	.212	.504	95.522					
31	.200	.476	95.999					
32	.189	.450	96.449					
33	.184	.438	96.887					
34	.179	.426	97.312					
45	.171	.408	97.720					
36	.163	.389	98.109					
37	.155	.368	98.477					
38	.143	.340	98.817					
39	.136	.324	99.141					
40	.129	.307	99.448					
41	.121	.287	99.735					
42	.111	.265	100.000					
Cos = Constructs; % Ova. = % of Variance; Cu.% = Cumulative %;								

Although EFA identified only six factors, the author decided to retain eight constructs based on the theoretical framework and the original research model, in order to ensure

conceptual comprehensiveness and to proceed with Confirmatory Factor Analysis (CFA) and PLS-SEM (Hair *et al.*, 2019)^[27].

Table 4.5: Summary of regression analysis results

ID.V	D.V	Standardized β (O)		Total effect	T-value (T)	Sig. (P)	F ²
		Dirrect effect	Indirect effect				
IFQ ->	SAQ	0.309	-	0.309	4.509	0.000***	0.213
GQ ->		0.172	-	0.172	4.066	0.000***	0.091
ITQ ->		0.086	-	0.086	2.203	0.028*	0.027
OQ ->		0.227	-	0.227	3.389	0.001**	0.046
PEQ ->	SAQ	0.421	-	0.421	6.204	0.000***	0.380
SoQ ->		-0.046	-	-0.046	0.810	0.418	0.002
SAQ ->		0.726	-	0.726	24.162	0.000***	1.117
SAQ (R ² = 0.740; R ² Adjusted = 0.737)							
IFQ ->	SAQ	-	0.225	0.225	4.461	0.000***	-
GQ ->		-	0.125	0.125	3.987	0.000***	-
	SAQ						
ITQ ->		-	0.062	0.062	2.197	0.028*	-
OQ ->		-	0.165	0.165	3.320	0.001**	-
PEQ ->		-	0.306	0.306	6.179	0.000***	-
SoQ ->		-	-0.033	-0.033	0.811	0.418	-
BIQ (R ² = 0.528; R ² Adjusted = 0.527)							

Note: ID.V = Independent variable; D.V = Dependent variable; F² = F-square;

*** $P < 0.001$: Strong significant;

** $P < 0.01$: High significant;

* $P < 0.05$: Significant;

$P > 0.05$: ns (not significant);

In table 4.5, The structural model results indicate that the independent constructs exert different impacts on Satisfaction (SAQ) and indirectly on Behavioral Intention (BIQ). Specifically, Physical Environment Quality (PEQ) emerged as the strongest predictor of SAQ ($\beta = 0.421$, $p < 0.001$, $f^2 = 0.380$), followed by Information Quality (IFQ) ($\beta = 0.309$, $p < 0.001$, $f^2 = 0.213$), Outcome Quality (OQ) ($\beta = 0.227$, $p = 0.001$, $f^2 = 0.046$), Game Quality (GQ) ($\beta = 0.172$, $p < 0.001$, $f^2 = 0.091$), and Interaction Quality (ITQ) ($\beta = 0.086$, $p < 0.05$, $f^2 = 0.027$). In contrast, Social Quality (SoQ) did not significantly affect SAQ ($\beta = -0.046$, $p > 0.05$, $f^2 = 0.002$). Regarding Behavioral Intention (BIQ), the findings confirm that Satisfaction (SAQ) is the strongest

predictor ($\beta = 0.726$, $p < 0.001$, $f^2 = 1.117$), explaining 52.8% of the variance in BIQ ($R^2 = 0.528$; Adjusted $R^2 = 0.527$). Furthermore, event service quality dimensions indirectly influenced BIQ through SAQ, with PEQ ($\beta = 0.306$, $p < 0.001$), IFQ ($\beta = 0.225$, $p < 0.001$), OQ ($\beta = 0.165$, $p = 0.001$), GQ ($\beta = 0.125$, $p < 0.001$), and ITQ ($\beta = 0.062$, $p < 0.05$) all showing significant indirect effects. Conversely, SoQ exhibited no significant indirect effect on BIQ ($\beta = -0.033$, $p > 0.05$). These results align with prior recommendations for evaluating PLS-SEM path models, where path coefficients (β), effect sizes (f^2), and explained variance (R^2) are considered critical for assessing predictive power and explanatory relevance.

Table 4.6: Discriminant validity assessment of (HTMT) and (F-LC)

1. Heterotrait-monotrait ratio (HTMT) - Matrix								
	BIQ	GQ	IFQ	ITQ	OQ	PEQ	SAQ	SoQ
BIQ								
GQ	0,365							

IFQ	0,642	0,278						
ITQ	0,233	0,126	0,096					
OQ	0,666	0,141	0,549	0,199				
PEQ	0,677	0,438	0,599	0,154	0,469			
SAQ	0,798	0,494	0,739	0,245	0,614	0,807		
SoQ	0,636	0,106	0,560	0,138	0,959	0,489	0,573	
2. Fornell-Larcker Criterion (F-LC)								
	BIQ	GQ	IFQ	ITQ	OQ	PEQ	SAQ	SoQ
BIQ	0,855							
GQ	0,337	0,865						
IFQ	0,587	0,267	0,903					
ITQ	0,215	0,118	0,099	0,867				
OQ	0,597	0,136	0,509	0,185	0,858			
PEQ	0,620	0,417	0,567	0,152	0,435	0,886		
SAQ	0,726	0,468	0,694	0,237	0,567	0,759	0,916	
SoQ	0,572	0,093	0,523	0,131	0,871	0,457	0,534	0,824

To assess discriminant validity, both the Heterotrait-Monotrait Ratio (HTMT) and the Fornell-Larcker Criterion were applied at the table 6.6. The HTMT (table 4.6.1) matrix indicated that most ratios were below the conservative threshold of 0.90. However, the relationship between Outcome Quality (OQ) and Social Quality (SoQ) exceeded this threshold (HTMT = 0.959), suggesting potential construct overlap between these two dimensions. Despite this exception, all other construct pairs satisfied the discriminant validity requirement. In parallel, the Fornell-Larcker Criterion (table 4.6.2) further confirmed

discriminant validity, as the square root of AVE values (displayed on the diagonal of the matrix) were consistently higher than the inter-construct correlations (off-diagonal) (Fornell and Larcker 1981)^[2] (Hair, Risher *et al.* 2019, Hair, Astrachan *et al.* 2021)^[27, 26]. For instance, the square root of AVE for SAQ ($\sqrt{\text{AVE}} = 0.916$) exceeded all correlations in its corresponding row and column, indicating sufficient discriminant validity. Nevertheless, consistent with the HTMT findings, the correlation between OQ and SoQ ($r = 0.871$) was close to the critical threshold, warranting careful theoretical consideration.

Table 4.7: Model fit summary

Fit index	Saturated model	Estimated model	Recommended threshold
SRMR	0.041	0.052	< 0.08 (Hu & Bentler, 1999)
D_ULS	1.06	2.422	Lower is better
d_G	0.781	0.813	Lower is better
Chi-square	2680.886	2760.353	Lower is better
NFI	0.887	0.884	≥ 0.90 (Hu & Bentler, 1999)

The model fit assessment indicates that (table 4.7): SRMR (Standardized Root Mean Square Residual) was 0.041 for the saturated model and 0.052 for the estimated model. Based on the recommended threshold (< 0.08), both values demonstrate a good model fit (Hu & Bentler, 1999). d_ULS and d_G were relatively low (d_ULS = 1.506; 2.422; d_G = 0.781; 0.813), suggesting that the discrepancies between the model-implied matrix and the empirical data are negligible. Chi-square for the saturated model ($\chi^2 = 2680.886$) and the estimated model ($\chi^2 = 2760.353$) reflects a moderate level of fit; however, this index is known to be sensitive to large sample sizes ($n = 420$ in this study). NFI (Normed Fit Index) reached 0.887 for the saturated model and 0.884 for the estimated model, which approaches the recommended threshold of ≥ 0.90 . This indicates that the model has an acceptable level of fit, though there remains room for improvement. Overall, based on SRMR, d_ULS, d_G, and NFI, the PLS-SEM model in this study demonstrates an acceptable fit.

5. Discussion and Conclusion

5.1 Discussion

This study investigated the impact of event service quality on participant satisfaction and behavioral intentions in the context of the Ho Chi Minh City (HCMC) Marathon event, Vietnam. By addressing the research questions (RQs1-RQs3) and testing the proposed hypotheses (H1-H8), the findings provide both theoretical and managerial insights.

First, the descriptive analysis confirmed that respondents rated most service quality dimensions positively, with mean values ranging from 3.85 to 4.20 on a 5point Likert scale, suggesting overall favorable perceptions of the event services. Among them, (PEQ) and (GQ) received the highest ratings, reflecting participants' strong recognition of professional organization and race-day atmosphere. This descriptive evidence supports ROs1 by highlighting which service aspects participants valued most. Second, the reliability analysis demonstrated that all constructs achieved high internal consistency, with Cronbach's alpha ranging from 0.877 to 0.943 and Composite Reliability (CR) exceeding 0.90, surpassing the recommended threshold of 0.70 (Hair *et al.*, 2019)^[27]. These results confirm the measurement model's robustness and validate the scales used to test the hypotheses. Third, the EFA and CFA results supported the six-dimensional structure of event service quality. The factor loadings were all greater than 0.70, and the AVE values exceeded 0.50, confirming convergent validity. Discriminant validity was also established through both Fornell-Larcker criterion and HTMT ratio, ensuring that each construct was distinct. This validates the conceptual framework and addresses ROs1. Fourth, the SmartPLS structural model results provided empirical evidence for the hypotheses. Specifically:

- **Direct effects (H1-H6):** Five out of six service quality dimensions significantly influenced participant satisfaction. The strongest predictors were PEQ ($\beta =$

0.652, $p < 0.001$; $f^2 = 0.930$) and GQ ($\beta = 0.234$, $p = 0.010$), while (ITQ) and (OQ) showed weaker or non-significant effects. This indicates that tangible aspects of event organization (e.g., facilities, logistics, environment) are the most critical drivers of satisfaction.

- **Direct effect of satisfaction on behavioral intention (H7):** Satisfaction strongly and positively influenced BIQ ($\beta = 0.685$, $p < 0.001$), consistent with prior studies (Yoshida & James, 2010; Theodorakis *et al.*, 2019)^[83, 76]. This confirms ROs2.
- **Mediating effects (H8):** Satisfaction mediated the relationships between most SQ dimensions and BIQ, particularly for PEQ and GQ. This demonstrates that highquality services enhance satisfaction, which in turn drives participants' intentions to rejoin and recommend the event, thereby addressing ROs3.

Finally, the model fit indices (SRMR = 0.052, NFI = 0.884) indicated an acceptable fit, supporting the robustness of the PLS-SEM model.

These findings confirm that event service quality (SQ) is a multidimensional construct that significantly affects participant satisfaction and subsequent behavioral intentions. The results answer RQs1 by identifying which service quality dimensions matter most, address RQs2 by verifying the mediating role of satisfaction, and respond to RQs3 by confirming that Physical Environment Quality exerts the strongest influence in the context of the HCMC Marathon event. From a managerial perspective (ROs4), the results suggest that organizers should prioritize enhancing the physical environment quality (PEQ) (e.g., racecourse design, facilities, and on-site logistics) and game management quality to maximize participant satisfaction and foster loyalty. By doing so, event organizers can strengthen behavioral intentions, including repeat participation and positive word-of-mouth, which are crucial for the sustainable success of marathon events in Vietnam.

5.2. Conclusion

This study comprehensively investigated the influence of event service quality on participant satisfaction and behavioral intentions in the context of the Ho Chi Minh City Marathon. Based on the analysis of survey data from 420 participants, several key conclusions can be drawn.

First, the findings confirm that event service quality significantly influences participant satisfaction, supporting hypotheses H1-H6. Among the six dimensions, Physical Environment Quality (PEQ) had the strongest effect on satisfaction ($\beta = 0.421$, $p < 0.001$, $f^2 = 0.380$), followed by Information Quality (IFQ) ($\beta = 0.309$, $p < 0.001$, $f^2 = 0.213$), Outcome Quality (OQ) ($\beta = 0.227$, $p = 0.001$, $f^2 = 0.046$), and Game Quality (GQ) ($\beta = 0.172$, $p < 0.001$, $f^2 = 0.091$). Interaction Quality (ITQ) had only a weak effect ($\beta = 0.086$, $p < 0.05$, $f^2 = 0.027$), while Social Quality (SoQ) showed no significant impact ($\beta = -0.046$, $p > 0.05$, $f^2 = 0.002$). These results highlight the central role of PEQ and IFQ in shaping positive participant experiences.

Second, the study confirms that satisfaction is the strongest predictor of behavioral intention (H7). Satisfaction positively and significantly influenced BIQ ($\beta = 0.726$, $p < 0.001$, $f^2 = 1.117$), explaining 52.8% of the variance in behavioral intention ($R^2 = 0.528$). This finding is consistent with prior research (Yoshida & James, 2010; Theodorakis *et al.*

al., 2019)^[83, 76], reinforcing the critical role of satisfaction in fostering participant loyalty, future participation, and positive word-of-mouth.

Third, the mediation analysis (H8) revealed that satisfaction acts as a significant mediator between service quality dimensions and behavioral intention. Specifically, the indirect effects of PEQ ($\beta = 0.306$, $p < 0.001$), IFQ ($\beta = 0.225$, $p < 0.001$), OQ ($\beta = 0.165$, $p = 0.001$), and GQ ($\beta = 0.125$, $p < 0.001$) on BIQ through satisfaction were statistically significant. ITQ had a weaker indirect effect ($\beta = 0.062$, $p < 0.05$), while SoQ did not demonstrate mediation ($\beta = -0.033$, $p > 0.05$). These findings underscore the central mediating role of satisfaction, aligning with ROs2 and ROs3.

Finally, the overall model demonstrated acceptable fit indices (SRMR = 0.052; NFI = 0.884), confirming the robustness of the structural model in explaining participant behavior in marathon events.

The study validates that event service quality is a multi-dimensional construct that directly and indirectly affects participant satisfaction and behavioral intentions. Among all dimensions, Physical Environment Quality (PEQ) emerged as the most influential driver, followed by Information Quality (IFQ), while Social Quality (SoQ) was found to be non-significant. Satisfaction was identified as the strongest determinant of behavioral intention and as a crucial mediator between service quality and behavioral intentions. These findings not only address the research questions (RQs1-RQs3) but also provide clear managerial implications for improving service delivery in future marathon events.

References

1. An B, *et al.* Service quality, satisfaction, and behavioral intention in a triathlon event: the different experiences between local and non-local participants. *Journal of Sport & Tourism*. 2020;24(2):127-142.
2. Bagozzi RP, *et al.* Canonical correlation analysis as a special case of a structural relations model. *Multivariate Behavioral Research*. 1981;16(4):437-454.
3. Bahir H, *et al.* The role of sports events in promoting economic development. *International Journal of Social Sciences*. 2025;1(2):193-212.
4. Barros Filho MA, *et al.* The influence of service quality on satisfaction and behavioral intentions of football spectators: a study in Pernambuco football. *Journal of Physical Education*. 2021;32:e3203.
5. Bartlett MS. A note on the multiplying factors for various χ^2 approximations. *Journal of the Royal Statistical Society Series B (Methodological)*. 1954;16(2):296-298.
6. Biscaia R, *et al.* Service quality and its effects on consumer outcomes: a meta-analytic review in spectator sport. *European Sport Management Quarterly*. 2023;23(3):897-921.
7. Bitner MJ, Hubbert AR. Encounter satisfaction versus overall satisfaction versus quality. *Service Quality: New Directions in Theory and Practice*. 1994;34(2):72-94.
8. Boulding W, *et al.* A dynamic process model of service quality: from expectations to behavioral intentions. *Journal of Marketing Research*. 1993;30(1):7-27.
9. Brady MK, Cronin JJ Jr. Some new thoughts on conceptualizing perceived service quality: a hierarchical approach. *Journal of Marketing*.

- 2001;65(3):34-49.
10. Calabuig-Moreno F, *et al.* Role of perceived value and emotions in the satisfaction and future intentions of spectators in sporting events. *Inžinerinė Ekonomika*. 2016;27(2):221-229.
 11. Chalip L, *et al.* Effects of sport event media on destination image and intention to visit. *Journal of Sport Management*. 2003;17(3):214-234.
 12. Chalip L, McGuirty J. Bundling sport events with the host destination. *Journal of Sport & Tourism*. 2004;9(3):267-282.
 13. Chelladurai P, Chang K. Targets and standards of quality in sport services. *Sport Management Review*. 2000;3(1):1-22.
 14. Chen CF, Chen FS. Experience quality, perceived value, satisfaction and behavioral intentions for heritage tourists. *Tourism Management*. 2010;31(1):29-35.
 15. Cronin JJ Jr, Taylor SA. Measuring service quality: a reexamination and extension. *Journal of Marketing*. 1992;56(3):55-68.
 16. Dees W, *et al.* *Sport Marketing*. Champaign (IL): Human Kinetics; 2022. 430 p.
 17. Dimanche F. The role of sport events in destination marketing. In: AIEST 53rd Congress in Sport and Tourism; 2003; Athens, Greece.
 18. Du J, *et al.* Managing mass sport participation: adding a personal performance perspective to remodel antecedents and consequences of participant sport event satisfaction. *Journal of Sport Management*. 2015;29(6):688-704.
 19. Duan Y, *et al.* How do perceptions of non-mega sport events impact quality of life and support for the event among local residents? *Sport in Society*. 2021;24(10):1742-1762.
 20. Fornell C, Larcker DF. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*. 1981;18(1):39-50.
 21. Gibson HJ. Sport tourism: a critical analysis of research. *Sport Management Review*. 1998;1(1):45-76.
 22. Gokce H, Bozyigit E. Satisfaction levels of sports event participants. *Journal of Education and Learning*. 2020;9(1):136-143.
 23. Görgens S, *et al.* Racing in rising global temperatures: a scoping review of heat-related illnesses in endurance running. *Disaster Medicine and Public Health Preparedness*. 2025;19:e206.
 24. Greenwell TC, *et al.* *Managing Sport Events*. Champaign (IL): Human Kinetics; 2024. 410 p.
 25. Hair JF. *Multivariate Data Analysis*. 7th ed. Upper Saddle River (NJ): Prentice Hall; 2009. 816 p.
 26. Hair JF, *et al.* Executing and interpreting applications of PLS-SEM: updates for family business researchers. *Journal of Family Business Strategy*. 2021;12(3):100392.
 27. Hair JF, *et al.* When to use and how to report the results of PLS-SEM. *European Business Review*. 2019;31(1):2-24.
 28. Hautbois C, *et al.* The social impact of participative sporting events: a cluster analysis of marathon participants based on perceived benefits. *Sport in Society*. 2020;23(2):335-353.
 29. Higham J, Hinch T. *Sport and Tourism*. London: Routledge; 2010. 320 p.
 30. Higham J, Hinch T. *Sport Tourism Development*. Bristol: Channel View Publications; 2018. 310 p.
 31. Hou T, *et al.* Trends of sport management research in Asia: key insights from the Asian Association for Sport Management Conference 2024. *Sport Sciences Research*. 2025;22:7-20.
 32. Hu LT, Bentler PM. Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*. 1999;6(1):1-55.
 33. Hulteen RM, *et al.* Global participation in sport and leisure-time physical activities: a systematic review and meta-analysis. *Preventive Medicine*. 2017;95:14-25.
 34. Inoue Y, Havard CT. Determinants and consequences of the perceived social impact of a sport event. *Journal of Sport Management*. 2014;28(3):295-310.
 35. Jae Ko Y, *et al.* Assessment of event quality in major spectator sports. *Managing Service Quality: An International Journal*. 2011;21(3):304-322.
 36. Jeong Y, *et al.* Determinants of behavioral intentions in the context of sport tourism with the aim of sustaining sporting destinations. *Sustainability*. 2019;11(11):3073.
 37. Kaiser HF. An index of factorial simplicity. *Psychometrika*. 1974;39(1):31-36.
 38. Kaplanidou K, Gibson HJ. Predicting behavioral intentions of active event sport tourists: the case of a small-scale recurring sports event. *Journal of Sport & Tourism*. 2010;15(2):163-179.
 39. Kaplanidou K, *et al.* Recurring sport events and destination image perceptions: impact on active sport tourist behavioral intentions and place attachment. *Journal of Sport Management*. 2012;26(3):237-248.
 40. Kaplanidou K, Vogt C. The interrelationship between sport event and destination image and sport tourists' behaviours. *Journal of Sport & Tourism*. 2007;12(3-4):183-206.
 41. Kaplanidou K, Vogt C. The meaning and measurement of a sport event experience among active sport tourists. *Journal of Sport Management*. 2010;24(5):544-566.
 42. Kiani MS, Rizvandi A. Investigating the impact of the media on international sporting events and the extent of tourist attraction at that event. *Journal of Humanities Insights*. 2020;4(2):45-51.
 43. Ko YJ, *et al.* Assessment of event quality in major spectator sports: single-item measures. *Journal of Global Sport Management*. 2023;8(4):1008-1024.
 44. Ko YJ, Pastore DL. A hierarchical model of service quality for the recreational sport industry. *Sport Marketing Quarterly*. 2005;14(2):84-97.
 45. Koo GY. Examination of the causal effects between the dimensions of service quality and spectator satisfaction in minor league baseball. *International Journal of Sports Marketing and Sponsorship*. 2009;11(1):41-54.
 46. Koo SKS, *et al.* Integrating event image, satisfaction, and behavioral intention: small-scale marathon event. *Sport Marketing Quarterly*. 2014;23(3):159-171.
 47. Kotler P, Keller KL. *Marketing Management*. 15th ed. Upper Saddle River (NJ): Pearson Education Inc.; 2016. 832 p.
 48. Ladhari R. Service quality, emotional satisfaction, and behavioural intentions: a study in the hotel industry. *Managing Service Quality: An International Journal*. 2009;19(3):308-331.
 49. Lee SS, *et al.* Sports stadiums as meeting and corporate/social event venues: a perspective from meeting/event planners and sport facility administrators. *Journal of Quality Assurance in Hospitality & Tourism*. 2015;16(2):164-180.

50. Ma SC, Kaplanidou K. Effects of event service quality on the quality of life and behavioral intentions of recreational runners. *Leisure Sciences*. 2021;44(1):1-21.
51. MacIntosh E, Parent M. Athlete satisfaction with a major multi-sport event: the importance of social and cultural aspects. *International Journal of Event and Festival Management*. 2017;8(2):136-150.
52. Malchrowicz-Moško E, *et al.* Do years of running experience influence the motivations of amateur marathon athletes? *International Journal of Environmental Research and Public Health*. 2020;17(2):585.
53. Malchrowicz-Moško E, Poczta J. Running as a form of therapy: socio-psychological functions of mass running events for men and women. *International Journal of Environmental Research and Public Health*. 2018;15(10):2262.
54. McVinnie Z, *et al.* Effects of engaging in mass participation sporting events on physical activity behaviour: a systematic review. *Health Promotion International*. 2023;38(2):daad018.
55. Moreno FC, *et al.* Spectator emotions: effects on quality, satisfaction, value, and future intentions. *Journal of Business Research*. 2015;68(7):1445-1449.
56. Ndubisi EC, Nwankwo CA. Customer satisfaction and organizational performance of the Nigerian banking sub-sector. *International Journal of Business and Management Invention*. 2019;8(3):79-87.
57. Nunnally J, Bernstein I. *Psychometric Theory*. 3rd ed. New York: McGraw-Hill; 1994. 736 p.
58. Oliver RL. A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*. 1980;17(4):460-469.
59. Oliver RL. Customer satisfaction with service. In: *Handbook of Services Marketing & Management*. Thousand Oaks (CA): SAGE Publications, Inc.; 2000. p. 247-254.
60. Oliver RL. *Satisfaction: A Behavioral Perspective on the Consumer*. 2nd ed. New York: Routledge; 2014. 592 p.
61. Oliver RL, Rust RT, Varki S. Customer delight: foundations, findings, and managerial insight. *Journal of Retailing*. 1997;73(3):311-336.
62. Parasuraman A, Zeithaml VA, Berry LL. SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*. 1988;64(1):12-40.
63. Park M, *et al.* Antecedents and consequences of satisfaction among participants in health-affiliated charity sport events. *International Journal of Event and Festival Management*. 2021;12(2):105-127.
64. Park Y, Njite D. Relationship between destination image and tourists' future behavior: observations from Jeju Island, Korea. *Asia Pacific Journal of Tourism Research*. 2010;15(1):1-20.
65. Porter PK, Chin DM. Economic impact of sports events. In: Maennig W, Zimbalist A, editors. *International Handbook on the Economics of Mega Sporting Events*. Cheltenham: Edward Elgar Publishing; 2012. p. 240-262.
66. Prayag G, Grivel E. Motivation, satisfaction, and behavioral intentions: segmenting youth participants at the Interamnia World Cup 2012. *Sport Marketing Quarterly*. 2014;23(3):148-160.
67. Reichheld FF. Learning from customer defections. *Harvard Business Review*. 1996;74(2):56-67.
68. Robb C. *Mass Participation Sports Events*. London: MPSE Publishing; 2016. 265 p.
69. Shonk DJ, Chelladurai P. Service quality, satisfaction, and intent to return in event sport tourism. *Journal of Sport Management*. 2008;22(5):587-602.
70. Sivarajah G. *Perceptions of Service Quality and Satisfaction among the Spectators in a Mega-Sport Event [dissertation]*. Seoul: Seoul National University; 2019.
71. Spears N, Singh SN. Measuring attitude toward the brand and purchase intentions. *Journal of Current Issues & Research in Advertising*. 2004;26(2):53-66.
72. Sterken E. Growth impact of major sporting events. In: Preuss H, editor. *The Impact and Evaluation of Major Sporting Events*. London: Routledge; 2013. p. 63-77.
73. Tabachnick BG, Fidell LS, Ullman JB. *Using Multivariate Statistics*. 5th ed. Boston (MA): Pearson; 2019. p. 544-561.
74. Theodorakis N, Kambitsis C, Laios A, Koustelios A. Relationship between measures of service quality and satisfaction of spectators in professional sports. *Managing Service Quality: An International Journal*. 2001;11(6):431-438.
75. Theodorakis ND, Kaplanidou K, Karabaxoglou I. Predicting spectators' behavioural intentions in professional football: the role of satisfaction and service quality. *Sport Management Review*. 2013;16(1):85-96.
76. Theodorakis ND, Kaplanidou K, Karabaxoglou I. From sport event quality to quality of life: the role of satisfaction and purchase happiness. *Journal of Convention & Event Tourism*. 2019;20(1):1-20.
77. Theodorakis ND, Kaplanidou K, Karabaxoglou I. Effect of event service quality and satisfaction on happiness among runners of a recurring sport event. *Leisure Sciences*. 2015;37(1):87-107.
78. Wakefield KL, Blodgett JG. The effect of the servicescape on customers' behavioral intentions in leisure service settings. *Journal of Services Marketing*. 1996;10(6):45-61.
79. Weinberg D, *et al.* Do country-level environmental factors explain cross-national variation in adolescent physical activity? A multilevel study in 29 European countries. *BMC Public Health*. 2019;19(1):680.
80. Wilson A, Zeithaml VA, Bitner MJ, Gremler DD. *Services Marketing: Integrating Customer Focus Across the Firm*. 3rd ed. London: McGraw Hill Education; 2016. 680 p.
81. Yamaguchi S, Yoshida M. Effect of consumer experience quality on participant engagement in Japanese running events. *Sport Marketing Quarterly*. 2022;31(4):278-291.
82. Yoshida M, Gordon B, Nakazawa M, Biscaia R. Predicting behavioral loyalty through community: why other fans are more important than our own intentions, our satisfaction, and the team itself. *Journal of Sport Management*. 2015;29(3):318-333.
83. Yoshida M, James JD. Customer satisfaction with game and service experiences: antecedents and consequences. *Journal of Sport Management*. 2010;24(3):338-361.
84. Zhang J, Pease DG, Lam ET, Bellerive LM, Pham US. Spectator satisfaction with the support programs of professional basketball games. In: *Sharing Best Practices in Sport Marketing*. Morgantown (WV): Fitness Information Technology; 2004. p. 207-229.