

The Relationship among Service Quality, Satisfaction, and Future Intentions of Users at Main Media Center: Case of Guangzhou Asian Games

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Abstract

The purpose of this study was to examine the relationship among service quality, satisfaction, and the future intentions of users at the media center for Guangzhou Asian Games. A total of 295 users of media center from the 2010 Asian Games were invited to participate in a survey. A result of Structural Equation Modeling (SEM) indicated that all service quality attributes such as information, convenience, and volunteers had a positive effect on overall satisfaction excluding facilities. In addition, overall satisfaction had a significant effect on word-of-mouth (WOM). The findings of this study contributed to the field of sport media and event management by developing a better understanding of media center users at sporting event.

Key words: Media Center, Service Quality, Sporting Event

Introduction

The 2010 Guangzhou Asian Games was one of the biggest international sporting events encompassing 11,634 athletes competing in 42 sports and over 849 million people watched this event through the media (International Olympic Committee, 2013; Jie, 2011). In international sporting events, the media has become an integral part of the event since it is hard for spectators to visit the host city and watch the game in stadium (Kim et al., 2013). Thus, organizers of international sporting events try to provide high-quality media center for media personnel to deliver the games lively and dynamically. For example, the Main Media Center (MMC) at the 2010 Guangzhou Asian Games covered

40,000 square meters consisting of two main sectors including the International Broadcasting Center (IBC) and Media Press Center (MPC) (People's Daily Online, 2010; SINA, 2010). Over 580 journalists and 130 photographers used the MMC offering telephone, Internet connections, and additional services (People's Daily Online, 2010). Typically, the symbolic reality of sports is reconstructed on the media by media personnel and it is perceived by audiences as an objective reality (Patkin, 2003). Thus, media personnel's perception toward the event or MMC would affect their broadcasting (Goodwin & Whannel, 1990; Kim et al., 2013). Therefore, examining the effect of media personnel's perception and satisfaction toward the event and MMC on future intention (e.g., Word-of-Mouth) would be interesting study providing valuable data for further research and event organizers.

Theoretical Review

Service Quality

Service quality is considered one of most influential factors in marketing that affects customers' satisfaction, word-of-mouth (WOM), and intention to use the service continuously (McDonald & Howland, 1998; Zeithaml et al., 1996). Parasuraman et al., (1988) defined the service quality as "the global evaluation or attitude of overall excellence of service" (p. 3). In other words, it concerns the difference between customers' expectations and perceptions of services actually delivered by different actors. Parasuraman et al. (1988) specified the criteria for the evaluation of service quality by developing a tool known as the SERVQUAL, which is mainly applied to assessing the banking industry, credit card companies, motor repair shops, and long-distance telecommunication providers. The SERVQUAL (Parasuraman et al., 1988) is a popular tool for measuring the quality of services provided in

a wide range of areas. This scale consists of general measurement questions with five dimensions supported by exploratory factor analysis (EFA): (a) Tangibles, (b) Reliability, (c) Responsiveness, (d) Assurance, and (e) Empathy (Parasuraman et al., 1988). The tool has been fine-tuned and modified to measure various types of services. A sports-related example is the 25-item scale developed by MacKay and Crompton (1990) to measure recreation service quality. Similarly, Howat, Absher, Criley, and Milne (1996) formulated the 15-item Center for Environmental and Recreation Management- Customer Service Quality (CERM-CSQ) Scale. Other researchers have attempted to develop assessment scales specific to the health and fitness industry (Chelladurai et al., 1987). Chelladurai et al. (1987) developed the Scale of Attributes of Fitness Services (SAFS) to measure service quality of fitness clubs. Based on the fact that these measuring instruments of service quality include core services, expanded services, and related services, they are indispensable to approaching the factors of services of the organization or facility being

Table 1. Service Quality Models in Sport and Leisure Settings

Authors	Model	Name of dimensions	Context
MacKay and Crompton (1990)	REQUAL	Assurance, reliability, responsiveness, tangibles	
Kim and Kim (1995)	QUESC	Ambience, employee attitude, employee reliability, social opportunity, information available, programs offered, personal considerations, price, privilege, ease of mind, stimulation, convenience.	Participatory sports and active recreation
Howat, Murray, and Criley (1999)	CERM-CSQ	Core services, personnel, peripheral services	
Alexandris, Zahariadis, Tsorbatzoudis, and Grouios (2004)		Perceived outcome, responsiveness, tangibles, reliability, personnel	
Chang and Chelladurai (2003)	SQFS	Service climate, management commitment, programs, interpersonal interactions, task interactions, physical environments, other clients, service failure, recovery.	
Lam, Zhang, and Jensen (2005)	SQAS	Staff, program, locker room, physical facility, workout facility, childcare	
Ko and Pastore (2005)	SSQRS	Program quality, interaction quality, outcome quality, physical environment quality	
McDonald, Sutton, and Milne (1995)	TEAMQUAL	Tangibles, responsiveness, reliability, assurance, empathy	Spectator sports
Kelley and Turley (2001)		Employees, price, facility access, concessions, fan comfort, game experience, showtime, convenience, smoking.	
Theodorakis, Kambitis, Laios, and Koustelios (2001)	SPORTSERV	Tangibles, responsiveness, access, security, reliability	

Note. From "Can service quality predict spectators' behavioral intentions in professional soccer?" by Theodorakis & Alexandris, 2008, *Managing Leisure*, 13(3-4), p. 166.

analyzed. Grönroos (1984) divided service quality into two dimensions including technical and functional quality. Technical service quality is explained as the core product that customer is actually provided (e.g., facility, equipment, and program). Functional service quality is related to the way in which the service is delivered (e.g., friendliness or attitude of employee). These two dimensions can greatly affect the corporate image of an organization collectively. For reference, table 1 presents the summary of service quality models in sport and leisure settings.

As the detail above indicates, dimensions and attributes of the service quality can be different and diverse based on the environment or service that they provide. Therefore, specific service quality attributes that affect the media center users' perception or intentions (e.g., satisfaction or WOM) at sporting events need to be identified to provide more effective data for further research and practical marketing strategy.

Media Center at International Sporting Event

The 2010 Guangzhou Asian Games was a massive event, encompassing 11,634 athletes competing in 476 events across 53 competition venues and 42 sports (International Olympic Committee, 2013). The main actor administering these activities was Guangzhou Asian Games Broadcasting Company (GAB). The Main Media Center (MMC) consisted of two main sectors including The International Broadcasting Center (IBC) and Media Press Center (MPC) (SINA, 2010). As a media service provider, GAB provided core services through the MMC essential to ensuring the quality of the coverage of the Games and the satisfaction of the members of the media (NEWSGD, 2009). Such services, in turn, made contribution to the success of the Games and the greater integration of all participating countries. One of the important aspects of the media coverage during the 2010 Asian Games was the role of journalists working side by side with broadcasters and other media personnel at the MMC.

As a major subcategory of journalism, sports journalism involves identifying, investigating, and editing the relevant aspects of sporting events being covered (Boyle, 2006). Processed information is spread to the members of society at large and provides them both entertainment and an update on critical current affairs, satisfying the audiences' desire to know. Sports journalists have the power to transform and / or reconstruct the event by differing the angles and locations of their cameras, employing different cuts in editing, or by different explanations of the event (Goodwin & Whannel, 1990). The symbolic reality of sports is reconstructed on TV, and the reconstructed version is perceived by the audience as objective reality (Patkin, 2003). Thus, media personnel's perception, satisfaction, and intentions toward sport event need to be studied and identified as they can affect great influence on viewers who could not attend the game and only watch the event through the media. In addition, since the MMC can effectively be viewed as having made contribution to objective journalism concerning the Games, it is important to analyze the services it provided.

In this sense, Kim et al.'s study (2013) also emphasizes the importance of service quality and satisfaction of MMC in behavior intention. Kim et al. (2013) found the service quality of MMC affects users' overall satisfaction and WOM intention. They analyzed a total of 195 media personnel from MMC at international sporting event and found that service quality of MMC such as transportation, news press, convenience stores, promotions, technology service, and volunteers affect the overall satisfaction or their WOM intention. Moreover, many prior studies also underlined the important role of satisfaction on future intentions and customer behaviors (Bitner & Hubbert, 1994; Cronin & Taylor, 1992; Gotlieb et al., 1994; Reichheld & Sasser, 1990). Therefore, based on the detail above, the purpose of this study was examined to test (a) the validity and reliability of service quality attributes of main media center (MMC) that affect

media personnel's overall satisfaction (b) the degree to which service quality attributes can predict overall satisfaction and word-of-mouth (WOM) intention.

Methodology

Participants

The data were collected through a survey from users of the media center during the 2010 Guangzhou Asian Games. Sample included reporters, broadcasters, broadcasting technicians, producers, and other media members authorized access as members of participating countries. A total of 295 surveys were collected using convenience sampling method. Of the 295 respondents, 67.8% ($n = 200$) were male and 32.2% ($n = 95$) were female. Most respondents were between 20 and 30 years old (45.1%). Approximately 42% ($n = 122$) of respondents had international working experience on more than two occasions and came from 24 different countries.

Measurement

The questionnaire consisted of four sections to assess service quality, overall satisfaction, word of mouth intention, and demographic information. Service quality of the media center was measured using a 25-item scale adopted from SERVQUAL (Parasuraman et al., 1988, Cronbach's $\alpha = .85$). Respondents were asked to evaluate four service quality dimensions such as convenience (10 items), facilities (8 items), information (4 items), and volunteers (3 items) of MMC at this Asian Game. For example, respondents were asked to assess "Traffic facilities of the VMCs are convenient to use". The four items for overall satisfaction were adopted from Oliver's (1997) study. The scale indicated high reliability in his study, with Cronbach's α of .90 (Oliver, 1997). Three items for word-of-mouth (WOM) intention were derived from Howat, Murray, and Crilley's (1999) study. All items were

reviewed for content validity through discussion with expertise in international sporting event and the media center. A scale were measured on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Data Analysis

Descriptive statistics, normality of variables (e.g., skewness and kurtosis), internal consistency (Cronbach's α), interfactor correlations were obtained through SPSS 20.0. Based on Anderson and Gerbing's (1988) suggestion, the two-step approach for structural equation modeling (SEM) was employed. A confirmatory factor analysis (CFA) was first conducted in order to evaluate the measurement model, and the proposed model was developed and tested using a structural equation modeling (SEM) with MPLUS 5.21 program. To assess the overall model fit, several fit indices were employed; Chi square (χ^2) / degrees of freedom (χ^2/df) (<5.0), comparative fit index (CFI) ($>.90$), root mean square error of approximation (RMSEA) ($<.08$), root mean square residual (RMR) ($<.08$), and standardized root mean square residual (SRMR) ($<.08$) (Bollen, 1989; Hu & Bentler, 1999). The reliability and validity of the constructs were evaluated by Cronbach's α with .70 threshold and factor correlation values (Kline, 2005; Nunnally & Bernstein, 1994). In addition, we employed three tests of reliability including Cronbach's α (α), composite reliability (CR), and average variance extracted (AVE). We adopted the thresholds of .70, .70, and .50 values to determine α , CR, and AVE, respectively (Bagozzi & Yi, 1988; Fornell & Larcker, 1981; Hair et al., 2010).

Results

Confirmatory Factor Analysis

Kurtosis and skewness of all items were assessed

Table 4. Interfactor Correlations and Cronbach's Alpha

	1	2	3	4	5	6
1. Convenience	1.00					
2. Facilities	.73	1.00				
3. Information	.75	.71	1.00			
4. Volunteers	.56	.49	.55	1.00		
5. WOM	.64	.60	.64	.52	1.00	
6. Satisfaction	.75	.67	.76	.66	.69	1.00
<i>M</i>	3.72	3.75	3.66	4.06	3.99	3.91
<i>SD</i>	.74	.70	.82	.85	.72	.76
<i>a</i>	.90	.86	.86	.85	.81	.92

Note. All correlations are significant at $p < .05$.

Table 2. Mean, Standard Deviation, and Skewness and Kurtosis Values of Service Quality

Items	M	SD	S	K
Airport immigration and processing is convenient (COV1)	3.82	.89	-.38	-.29
Access to the MMC is convenient (COV2)	3.80	1.05	-.70	-.06
Access of to the venue media centers (VMCs) is convenient (COV3)	3.68	.98	-.47	-.11
Approaching the VMCs (in terms of distance, travel time, and shuttle availability) is convenient (COV4)	3.41	1.18	-.50	-.51
Traffic facilities of the VMCs are convenient to use (COV5)	3.65	1.02	-.37	-.48
The information of rules or collection of data is easily available (COV6)	3.80	1.03	-.62	-.21
Mixed zone, press and photo workrooms in the VMCs are convenient to use (COV7)	3.73	.98	-.47	-.30
Athletes' information and results are readily and easily available (COV8)	3.89	1.02	-.74	-.03
Information service is good (COV9)	3.87	1.03	-.72	-.02
Language services are easily accessible (COV10)	3.59	.98	-.47	-.02
The VMCs are well equipped with food and beverage facilities and services (FAC1)	3.57	1.03	-.44	-.43
The MMC has all the necessary amenities (banks, post offices, shops, etc.) (FAC2)	3.74	1.02	-.59	-.08
The MMC has good Wi-Fi service (FAC3)	3.31	1.15	-.39	-.48
The MMC has good Internet Network service (FAC4)	3.32	1.10	-.24	-.58
The facilities at the Media Village are good (FAC5)	3.96	.87	-.58	-.02
Broadcast technology/support equipment and services are good (FAC6)	3.88	.87	-.46	-.03
The media center is generally clean (FAC7)	4.27	.77	-.83	.18
The air conditioning at the MMC and VMCs is good (FAC8)	3.92	1.09	-.92	.26
Various events provide for the collection of required data and articles (INF1)	3.76	.87	-.25	-.48
Various types of public information and PR activities on the Asian Games are available (INF2)	3.73	.95	-.52	.01
Many programs are provided on site (INF3)	3.52	1.05	-.14	-.77
The MMC provides information on the next venue of competition (e.g., Incheon, South Korea) (INF4)	3.64	1.04	-.29	-.60
The volunteers are kind (VOL)	4.38	.82	-1.50	2.51
The volunteers work for the convenience of spectators (VOL)	4.20	.93	-1.00	.38
The volunteers have required knowledge (VOL)	3.59	1.12	-.35	-.63

Note. COV = convenience; FAC = facilities; INF = information; VOL = volunteer, S = skewness, K = kurtosis

Table 3. Mean, Standard Deviation, Skewness and Kurtosis Values of Overall Satisfaction and WOM

Items	M	SD	S	K
Technical services for the media are good (SAT1)	3.89	.86	-.62	.36
The MMC provides good services (SAT2)	3.98	.81	-.55	.15
The facilities at the VMCs for the members of the media are good (SAT3)	3.88	.89	-.61	.18
Good general information is available on the venues of the Asian Games and competitions (SAT4)	3.88	.86	-.55	.25
I would recommend China to a colleague as a hosting country for another international event (WOM1)	3.92	.93	-.61	.06
I would recommend another foreign country to a colleague as a hosting country for another international event (WOM2)	3.95	.80	-.39	-.12
I would positively discuss my experience with my colleagues (WOM3)	4.11	.79	-.53	-.14

Note. SAT = overall satisfaction WOM = word-of-mouth, S = skewness, K = kurtosis.

and no extreme values exceeding 3.0 were found (Chou & Bentler, 1995). All of the values of Cronbach's (from .82 to .92), CR (from .81 to .91), and AVE (from .51 to .73) were well above the recommended cutoff criteria, indicating that the items within the measurement model were reliable. All interfactor correlations were significant and within the .85 cut-off value (Kline, 2005; Table 4). Therefore, discriminant validity was ensured (Kline, 2005). CFA for the measurement model of service quality, overall satisfaction, and WOM yielded as a satisfactory model fit (χ^2 / df (357 = 1.84, $p < .01$; RMSEA = .053; CFI = .951; SRMR = .045). Table 2 and 3 present mean, standard deviation, and kurtosis and skewness of all items.

Structural Equation Modeling

The results for SEM indicated the proposed structural model fit the data well (χ^2 / df = 1.86, $p < .01$; RMSEA = .054; CFI = .949; SRMR = .047). All service quality attributes had a positive effect on overall satisfaction. Convenience ($\beta = .33$, $p < .01$), information ($\beta = .34$, $p < .01$), and volunteers ($\beta = .29$, $p < .01$) had a positive effect on overall satisfaction; however, the facility ($\beta = .07$, $p > .05$) was not statistically significant. In addition, overall satisfaction had positive effects on the recommendation factor ($\beta = .83$, $p < .01$). Proposed

structural model was presented in Figure 1.

Discussion

The results indicated that the three of four service quality attributes in Main Media Center (MMC) affect overall satisfaction toward MMC. In detail, based on the standardized regression coefficients, service quality of information in MMC had greatest influence on overall satisfaction followed by convenience, and volunteers. Information was also main factor in prior study of service quality in sport (Kim & Kim, 1995). It could be logical results since MMC users' main consideration is to deliver information about the event such as athletes, game result, or rules on time. Thus, it is important for MMC and event organizers to put a lot of works into providing necessary data for media personnel quickly and precisely on site. Nevertheless, prior study indicated opposite result to this study (Kim et al., 2013). Kim and his colleagues (2013) analyzed the MMC service quality at 2011 International Amateur Athletic Federation (IAAF) World Championship, but they did not found a significant effect of information service on overall satisfaction of MMC users. This difference would drive by different nationality and cultural background of the MMC users.

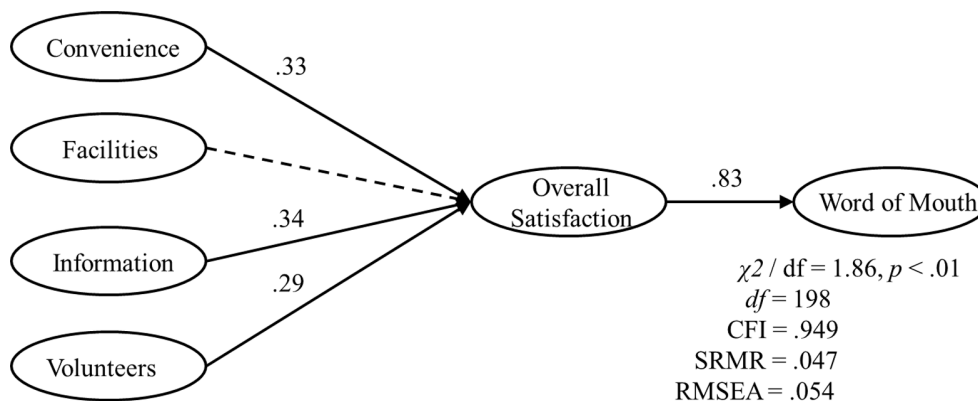


Figure 1. Proposed structural model.

Note. Solid lines indicate significant paths at $p < .05$. Dotted lines indicate insignificant paths. Values shown next to the solid lines are standardized regression coefficients.

Next, convenience had an influence on satisfaction and this result supports prior studies (Kim et al., 2013; Seiders et al., 2005). Seiders and his colleagues (2005) found a significant effect of convenience on the relationship between customer satisfaction and behavior intentions. Kim et al. (2013) also found a significant effect of convenience on overall satisfaction of MMC users at IAAF. They suggested that it is important to increase not only convenience of MMC but also supporting services (e.g., bank, post office, grocery store, souvenir store, fast-food restaurant) to increase the overall satisfaction of MMC users.

As several prior studies suggested the important role of volunteers (Howat et al., 1996; Kim et al., 2013; Kim & Kim, 1995; Parasuraman et al., 1988), this study also found a significant effect of volunteers on customer satisfaction. Since over 590,000 volunteers worked for 2010 Asian Games, they have already become a core service provider in international sporting event (The United Nations Volunteers, 2010). Moreover, Grönroos (1984) indicated that functional quality, how service is delivered to consumers, is one of main service quality dimensions. Therefore, volunteer education, training and support program needs to be concerned to increase the customer satisfaction as they provide service through a face to face interaction with media center users. The overall satisfaction that was affected by several service quality attributes above had a significant influence on WOM intention. Most of MMC users are media personnel and how they report the event can be the only way for people, who do not attend the game in stadium, to see and evaluate the event. In this sense, media personnel can gain great importance in an international sporting event. Media center users' perceptions toward the event can possibly affect their reporting. As this study found the significant effect of overall satisfaction of MMC on WOM, the event organizers need to increase the positive impression and evaluation of the event by increasing media center users' overall satisfaction. On the other hand, service quality of facilities did not

affect overall satisfaction in this study. It supports prior study of MMC in international sporting event (Kim et al., 2013). Based on these results, for users of MMC, service quality of facilities was less important than other service attributes (e.g., information, convenience, and volunteers). Thus, event organizer needs to establish more effective way to increase the satisfaction of MMC users by selection and concentration of service attributes.

In conclusion, the findings in this study indicate that the necessity and value of study how media centers and related services operate can be found in the effects they have on inducing worldwide consumption of sporting events. Broadcasting is an indispensable medium of sports consumption and a channel of information. In other words, broadcasting publicizes sports, promotes interest in game attendance, socializes people into the role of spectators, nurtures interest in game attendance, and serves as a vehicle through which people obtain the information needed to identify with athletes and teams and, subsequently, become committed fans (Coakley, 2005; Greendorfer, 1981; Lever & Wheeler, 1984; Zhang et al., 1998; Zhang & Smith, 1997). In particular, the MMC at the 2010 Asian Games served the additional role of increasing interest in what have traditionally been non-popular sports. The foundation of this study contributed to the field of sport media and event management by developing a better understanding of sport media users or customers. From a theoretical standpoint, we found that the key variables in user behavior (e.g., convenience, information, and volunteers factors) play an important role in quality perceptions of MMC.

Limitations and Future Research

This study had several limitations that future researches need to concern. First, the sample in this study was drawn from a single event that raises a concern about limited generalizability. Thus, future

studies would analyze a broader sample from several different MMC at international sporting events with characteristics of the sample and events as well (e.g., nationality, year of work, the size of sporting events, or number of potential viewers). It is important to efficiently identify the needs and expectations of users or customers of MMC and to formulate strategies of satisfaction in order to improve their work quality and productivity (Brooks, 1994; Buell, 1984; Mullin, Hardy, & Sutton, 2007; Stotlar, 1989). Therefore, further studies investigating these users' or customers' satisfaction levels are required so as to improve the quality of services provided by media-related facilities. In other words, media management at sporting events requires a marketing, strategy-concerned approach.

References

- Alexandris, K., Zahariadis, P., Tsorbatzoudis, C., & Grouios, G. (2004). An empirical investigation of the relationships among service quality, customer satisfaction and psychological commitment in a health club context. *European Sport Management Quarterly*, *4*(1), 36-52.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, *103*(3), 411-423.
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, *16*, 74-94.
- Bitner, M. J., & Hubbert, A. R. (1994). *Encounter satisfaction versus overall satisfaction versus quality*. Service quality: New Directions in Theory and Practice, 72-94.
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York: Wiley.
- Boyle, R. (2006). *Sports journalism: Context and issues*. London: Sage
- Brooks, C. M. (1994). *Sport marketing: Competitive business strategies for sport*. Englewood Cliffs, NJ: Prentice-Hall.
- Buell, V. P. (1984). *Marketing management: A strategic planning approach*. New York: McGraw-Hill.
- Chang, K., & Chelladurai, P. (2003). System-based quality dimensions in fitness services: development of the scale of quality. *The Service Industries Journal*, *23*(5), 65-83.
- Chelladurai, P., Scott, F. L., & Haywood-Farmer, J. (1987). Dimensions of fitness services: Development of a model. *Journal of Sport Management*, *1*(2), 159-172.
- Chou, C. P., & Bentler, P. M. (1995). *Estimates and tests in structural equation modeling*. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 37- 5). Thousand Oaks, CA: Sage.
- Coakley, J. J. (2005). *Sport in society: Issues and controversies (7th ed.)*. Boston: McGraw-Hill.
- Cronin, Jr., J. J., & Taylor, S. A. (1992). Measuring service quality: A reexamination and extension. *The Journal of Marketing*, *56*(July), 55-68.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*, 39-50.
- Goodwin, A. & Whannel, G. (1990). *Understanding Television*. New York: Routledge.
- Gotlieb, J. B., Grewal, D., & Brown, S. W. (1994). Consumer satisfaction and perceived quality: Complementary or divergent constructs? *Journal of Applied Psychology*. *79*(6), 875-885.
- Greendorfer, S. H. (1981). Sport and the mass media. In G. R. F. Luschen, & G. H. Sage (Eds.), *Handbook of social science of sport*. Champaign, IL: Stipes.
- Grönroos, C. (1984). A service quality model and its marketing implications. *European Journal of Marketing*, *18*(4), 36-44.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis (7th ed.)*. Upper Saddle River, NJ: Prentice-Hall.
- Howat, G., Absher, J., Criley, G., & Milne, I. (1996). Measuring customer service quality in sports and leisure centers. *Managing Leisure*, *1*(2), 77-89.
- Howat, G., Murray, D., & Crilley, G. (1999). The relationships between service problems and perceptions of service quality, satisfaction, and behavioural intentions of Australian public sports and leisure centre customers. *Journal of Park and Recreation Administration*, *17*(2), 42-64.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1-55.
- International Olympic Committee (2013). Official website of the Olympic movement. Retrieved from <http://www.olympic.org/>
- Jie, C. G. (2011, January 14). Audience rating analysis of 2010 Guangzhou Asian Games. *CCTV*. Retrieved from <http://english.cntv.cn/english/special/AD/20110114/105152.shtml>
- 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, D., & Kim, S. Y. (1995). QUESC: An instrument for

- assessing the service quality of sport centres in Korea. *Journal of Sport Management*, **9**(2), 208-220.
- Kim, M. K., Kim, S. K., Lee, D. H., Judge, L. W., & Huang, H. (2013). Factors explaining satisfaction and future recommendation of users at main media center: Case study of International Amateur Athletic Federation (IAAF). *ICHPERSD-Journal of Research*, **8**(2), 39-44.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York: Guilford.
- Ko, Y. J., & Pastore, D. L. (2005). A hierarchical model of service quality for the recreational sport industry. *Sport Marketing Quarterly*, **14**(2), 84-97.
- Lam, E. T., Zhang, J. J., & Jensen, B. E. (2005). Service quality assessment scale (SQAS): An instrument for evaluating service quality of health-fitness clubs. *Measurement in Physical Education and Exercise Science*, **9**(2), 79-111.
- Lever, J., & Wheeler, S. (1984). The Chicago Tribune sports page, 1990-1975. *Sociology of Sport Journal*, **1**(4), 299-313.
- MacKay, K. J., & Crompton, J. L. (1990). Measuring the quality of recreation services. *Journal of Park and Recreation Administration*, **8**(3), 47-56.
- McDonald, M. A., & Howland, W. (1998). Health and fitness industry. In L. P. Masteralexis, C. A. Barr, & M. A. Hums (Eds.), *Principles and practice of sport management* (pp. 431-451). Gaithersburg, MD: Aspen.
- McDonald, M. A., Sutton, W. A., & Milne, G. R. (1995). TEAMQUAL TM: Measuring service quality in professional team sports. *Sport Marketing Quarterly*, **4**(2), 9-15.
- Mullin, B. J., Hardy, S., & Sutton, W. A. (2007). *Sport marketing* (Vol. 13). IL: Human Kinetics.
- NEWSGD (2009, March 30). Guangzhou Asian Games outlines global broadcasting plans. *NEWSGD*. Retrieved from http://www.newsgd.com/news/guangdong1/content/2009-03/30/content_5023312.htm
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- Oliver, R. L. (1997). *Satisfaction: Behavioral perspective on the consumer*. McGraw-Hill: New York.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). Servqual. *Journal of retailing*, **64**(1), 12-37.
- Patkin, T., T. (2003). *Communication and cyberspace*, In Ed. L. Strate, R.L. Jacobson, S. Gibson, Second Edition, Hampton Press.
- People's Daily Online (2010, November 1). Guangzhou opens Asian Games main media center. *People's Daily Online*. Retrieved from <http://english.people.com.cn/90001/90776/90882/7184198.html>
- Reichheld, F. F., & Sasser, E. W. (1990). Zero defections: Quality comes to services. *Harvard Business Review*, **68**, 105-111.
- Seiders, K., Voss, G. B., Grewal, D., & Godfrey, A. L. (2005). Do satisfied customers buy more? Examining moderating influences in a retailing context. *Journal of Marketing*, **69**(4), 26-43.
- SINA (2010, November 1). Guangzhou opens Asian Games main media. *SINA* Retrieved from center <http://english.sina.com/sports/p/2010/1101/346129.html>
- Stotlar, D. K. (1989). *Successful sport marketing*. Dubuque, IA: W. C. Brown.
- The United Nations Volunteers (2010, August 24). Passing the torch of volunteering from Beijing Olympics to 2010 Asian Games. *The United Nations Volunteers*. Retrieved from <http://www.unv.org/en/what-we-do/thematic-areas/youth/doc/passing-the-torch-of.html>
- Theodorakis, N. D., & Alexandris, K. (2008). Can service quality predict spectators' behavioral intentions in professional soccer?. *Managing Leisure*, **13**(3-4), 162-178.
- Theodorakis, N., Kambitis, C., Laios, A. and Koustelios, A. (2001). Relationships between measures of service quality and satisfaction in professional sports. *Managing Service Quality*, **11**, 431-438.
- Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, **60**(4), 31-46.
- Zhang, J. J., & Smith, D. W. (1997). Impact of Broadcasting on the Attendance of Professional Basketball Games. *Sports Marketing Quarterly*, **6**(1), 23-29.
- Zhang, J. J., Pease, D. G., & Smith, D. W. (1998). Relationship between broadcasting media and minor league hockey game attendance. *Journal of Sport Management*, **12**(2), 103-122.