

Participants' Service Quality Perceptions of Fantasy Sports Websites: The Relationship Between Service Quality, Customer Satisfaction, Attitude, and Actual Usage

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Abstract

The purpose of this study was to examine participants' perceptions of the service quality of fantasy sports websites and to understand the relationship between service quality, satisfaction, attitude, and actual usage associated with the websites. Furthermore, this study compared the proposed service-quality model with a rival model to examine the role of satisfaction and attitude as mediating variables. The proposed service-quality measure consisted of four perceived service quality dimensions (i.e., ease of use, trust, content, and appearance). A convenience sample of 279 participants was collected from message board users of four fantasy sports websites (i.e., ESPN.com Fantasy Games, Yahoo! Fantasy Sports, FOX Fantasy Sports, and NFL Events: Fantasy Sports). Structural analysis revealed that satisfaction and attitude acted as mediating variables connecting service quality and actual usage of fantasy sports websites. These results are discussed and the study's theoretical and practical sport marketing implications are detailed.

Introduction

Over the past 20 years the sport industry has had the opportunity to capitalize on numerous technological advances offered through advances in the Internet. Online fantasy sport is one area in particular that has witnessed phenomenal growth. Fantasy sport, according to Prescott (2006), is estimated to be a \$1.5 billion segment of the sport industry. The growth of this segment has presented opportunities for various stakeholders to use the fantasy sport phenomenon to drive consumers to their site and to generate additional revenue streams. For instance, Yahoo! recently spent \$98 million to purchase Rivals.com to strengthen its fantasy sports services ("Yahoo! Sports," 2008). With the explosive growth of web technology, most major sports websites (e.g., ESPN [ESPN.go.com], FOX Sports [msn.foxsports.com], Yahoo! Sports [sports.yahoo.com], CBS Sports [CBSSports.com]) have begun providing various types of fantasy sports leagues.

It can be assumed that consumers will benefit from the growth and competition surrounding online fantasy sports; therefore, it would be wise for service-oriented sport website professionals to focus their efforts on making fantasy sports sites more affordable and attractive. For instance, CBSSports.com's fantasy sports website includes unique content (i.e., extensive player analysis, video segments, and statistical reports) aimed at enhancing the company's competitive advantage in the fantasy sports market (Fisher, 2008). A competitive advantage in the online fantasy segment of the sport industry is providing extensive fantasy sports services (e.g., team and player statistics, contracts, league standings, newsletters). Overall, service quality is a key component in the sport marketing endeavors surrounding fantasy sports websites.

Several empirical studies (e.g., Parasuraman, Zeithaml, & Malhotra, 2005; Wolfinbarger & Gilly, 2002) have been devoted to identifying the importance

of service quality and explaining its relationship to customer satisfaction, attitude, and behavioral intentions. This is important because a company's service quality plays a critical role in satisfying customers, building consumer loyalty, and enticing customers to revisit websites (Parasuraman et al., 2005). However, the findings of each study have resulted in different arguments in terms of the direction and effect of service quality on these constructs. For instance, Cronin and Taylor (1992) indicated that perceived service quality is an antecedent factor in influencing customer satisfaction. In their findings, significant path coefficients existed between service quality and customer satisfaction, and between customer satisfaction and purchase intention. On the other hand, Bitner (1992) suggested that a direct effect exists between service quality and behavioral intentions.

Such discrepancies have provoked important questions about the relationships between service quality, satisfaction, attitude, and behavioral intentions (e.g., purchasing, revisiting). In addition, while there have been various service quality studies (e.g., Harris & Goode, 2004; Parasuraman, Zeithaml, & Berry, 1994; Spreng, Harrell, & MacKoy, 1995; Woodside, Frey, & Daly, 1989) there have been no studies conducted related to the service quality of fantasy sports websites. Therefore, the current study sought to identify the dimensions of perceived service quality associated with online fantasy sport participants and investigate the relationship between perceived service quality, customer satisfaction, attitude, and actual usage of fantasy sports websites.

Review of Literature

Service Quality

Service quality has been one of the most significant and widely studied issues in the marketing and service literature (Parasuraman et al., 2005). Service quality is a comparison of customer expectations about real service performance (Parasuraman, Zeithaml, & Berry, 1985). During the last few decades, many studies have been conducted on service quality because consumers' perceptions of service quality can affect consumer loyalty and behavioral intentions (Parasuraman et al., 2005). For example, Parasuraman et al. (1985) identified 10 determinants of service quality (i.e., reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding/ knowing the customer, and tangibles). In a following study, Parasuraman, Zeithaml, and Berry (1988) proposed a theoretical model, SERVQUAL, which contains the five dimensions of service quality (i.e., tangibles, reliability, responsiveness, assurance, and empathy). The

SERVQUAL model has been broadly used to measure various sectors such as banks, hotels, and leisure sports (e.g., Alexandris, Dimitriadis, & Markata, 2002; Knop, Hoecke, & Bosscher, 2004).

However, the SERVQUAL model has faced criticisms in regard to how it interprets service quality as it is related to websites and the Internet because such types of electronic service quality have different and exceptional processes in terms of service delivery (Parasuraman et al., 2005). Therefore, several researchers have proposed additional dimensions for electronic service quality to be used to measure websites and Internet service quality. Liu and Arnett (2000) proposed four factors associated with website success (i.e., information and service quality, system use, playfulness, and system design quality). Loiacono, Watson, and Goodhue (2002) proposed the use of the WebQual instrument to measure consumers' perceptions of website service quality using 12 dimensions (i.e., informational fit to task, interaction, trust, response time, design, intuitiveness, visual appeal, innovativeness, flow, integrated communication, business processes, and substitutability). A study conducted by Li, Tan, and Xie (2002) developed a conceptual framework within which to examine web-based service quality using a modified SERVQUAL. The suggested model included six dimensions (i.e., responsiveness, competence, quality of information, empathy, web assistance, and call-back systems). Similarly, Wolfenbarger and Gilly (2002) developed the .comQ measure, which consists of four dimensions (i.e., website design, reliability, privacy/security, and customer service). However, those proposed measures were quite limited and not comprehensive enough (e.g., weak external validity) to evaluate electronic service quality as a whole (Parasuraman et al., 2005).

Zeithaml, Parasuraman, and Malhotra (2000) proposed the e-SQ measure to identify electronic service quality, which is composed of 11 e-SQ dimensions (i.e., reliability, responsiveness, access, flexibility, ease of navigation, efficiency, assurance/trust, security/privacy, price knowledge, site aesthetics, and customization). Later, Zeithaml et al. (2002) proposed an improved model, which included two sets of dimensions. The first set, which contains four dimensions, is considered the core service scale (i.e., efficiency, reliability, fulfillment, and privacy), while the second set, which contains three dimensions, is regarded as the recovery scale (i.e., responsiveness, compensation, and contact). However, they discovered that the latter three dimensions were only significant when the consumers asked questions or reported problems. Finally, Parasuraman et al. (2005) redefined the previous model and proposed a new e-SQ scale, which utilized

two sets of scales: the E-Core Service Quality Scale (E-S-QUAL) and E-Recovery Service Quality Scale (E-ResS-QUAL).

As detailed above, while several studies have focused on the investigation of perceived service quality in various sectors, no studies have focused on identifying the perceived service quality of fantasy sport participants. Thus, based on previous literature, the proposed service-quality measure within this study identified four perceived service quality factors of fantasy sport participants (i.e., ease of use, trust, content, and appearance). The following section will explain the relationship between the perceived service quality, satisfaction, attitude, and behavioral intentions.

Relationship between Service Quality, Satisfaction, Attitude, and Behavioral Intentions

A number of studies (e.g., Harris & Goode, 2004; Spreng et al., 1995) have been conducted that relate to the antecedents, mediations, and consequences of each variable (e.g., service quality, satisfaction, attitude, behavioral intentions). However, discrepancies have appeared in the results of these studies. According to Parasuraman et al. (2005), service quality has been shown to invoke customer satisfaction, loyalty, and behavioral intentions. Researchers have also demonstrated that customer satisfaction is a significant predictor of customer attitude, which influences behavioral intentions (Woodside et al., 1989). Similarly, Cronin and Taylor (1992) proposed that perceived service quality leads to customer satisfaction as an antecedent factor. These findings were supported by the findings of Spreng et al. (1995), who indicated that perceived service quality serves as a forerunner to customer satisfaction. As a result, the following hypothesis was formulated for testing:

H1: The perception of service quality of the fantasy sports participants will be positively and significantly related to the participants' satisfaction with the fantasy sports websites.

Studies (e.g., Harris & Goode, 2004) have also focused on the relationship between customer satisfaction and loyalty and proposed that customer satisfaction influences attitudinal loyalty. Several researchers have established that higher satisfaction brings greater customer loyalty, which is referred to as a positive attitude (Anderson & Sullivan, 1993; Fornell, 1992). Oliver (1999) suggested that customer satisfaction has a major role in connecting perceived service quality and customer loyalty. Research (e.g., Olsen, 2002) has suggested that a customer's attitudinal loyalty is influenced by prior attitude and customer satisfaction. In addition, researchers (e.g., Harris & Goode, 2004, Johnson, Herrmann, & Huber, 2006) have indicated

that attitudinal loyalty is positively and significantly related to behavioral intentions, such as purchasing and revisiting intentions. Based on the research findings noted above, the following two hypotheses were created:

H2: The satisfaction levels of the fantasy sports participants will be positively and significantly related to the participants' attitudes toward fantasy sports participation.

H3: The attitude of the fantasy sports participants will be positively and significantly related to the participants' actual usage of fantasy sports websites.

As the literature above illustrates, there have been numerous examinations of service quality in general (e.g., Parasuraman et al., 1994; Spreng et al., 1995) and service quality in the sport industry (e.g., Kelley & Turley, 2001; Knop et al., 2004). Furthermore, there have been several studies published of service quality perceptions related to websites in general (e.g., Harris & Goode, 2004; Parasuraman et al., 2005). However, there has yet to be an analysis of service quality perceptions related to fantasy sports websites. Because of the phenomenal growth and potential of the fantasy sports segment of the sport industry and because of the unique marketing opportunities presented through fantasy sports websites, the present study examined participants' perceptions of service quality related to fantasy sports websites. In particular, the study investigated the role of fantasy sports participants' satisfaction levels and attitudes as mediating variables in the perceived service quality of the fantasy websites. More specifically, the present study analyzed a comparison of two proposed models (i.e., proposed service-quality model and rival model) as there have been obvious discrepancies in the results of the previous literature in this area.

For example, studies (e.g., Cronin, Brady, & Hult, 2000) have suggested that perceived service quality might directly influence behavioral intentions. As suggested by Davis, Bagozzi, and Warshaw (1989), ease of use has a small, but significant effect on behavioral intentions. Studies (e.g., Bitner, 1992) have indicated that service quality has a direct influence on behavioral intentions, even though service quality is less effective on behavioral intentions than customer satisfaction. Thus, research has shown that service quality has a positive and significant influence on behavioral intentions (e.g., repurchasing intentions).

Therefore, because of the discrepancy in the research noted above, in the present study's proposed service-quality model, participants' satisfaction and attitude were considered mediating effects, which offered linkages between perceived service quality and actual usage. In other words, the model assumed that no

direct effect existed in regard to perceived service quality on actual usage. On the other hand, the rival model ignored mediating effects, such as satisfaction and attitude, and assumed that a direct effect existed in regard to service quality on actual usage. Based on the ambiguous results from various studies related to the concept of perceived service quality, the final hypothesis for this study was established:

H4: The fantasy sports participants' satisfaction and attitude will have mediating effects, which will be illustrated in the links between service quality and actual usage.

Method

Sample

A convenience sampling method was employed and the sample for this study was collected from message board users of four fantasy sports websites (i.e., ESPN.com Fantasy Games, Yahoo! Fantasy Sports, FOX Fantasy Sports, and NFL Events: Fantasy Sports). The current study utilized the online survey method. The subjects were able to access the URL of the survey questionnaire, which was placed on each message board. From the 388 questionnaires received, 279 questionnaires were useable. The sample size of this study satisfied the minimum criteria, which is greater than 200 for the analysis of the structural equation modeling (Hair, Black, Babin, Anderson, & Tatham, 2006).

Measurement

The survey questionnaire was composed of four sections: service quality, satisfaction, attitude, and demographic items. To create the items on the questionnaire, previous studies related to electronic service quality were reviewed and analyzed (e.g., Parasuraman et al., 2005; Zeithaml et al., 2002). Additionally, an expert panel method was used, which consisted of faculty members and doctoral fellows in the sport management program at a large Midwestern research university in the United States. Overall, the questionnaire contained 24 items in each section.

The service quality section included 12 items. The measurement for service quality was based on 5-point Likert-type scale, which ranged from strongly disagrees to strongly agree. An example of a service quality item is, "The online content related to fantasy sports was easy to follow." In the satisfaction section, which included three items, respondents were asked about their feelings in regard to the fantasy sports that they most frequently participated in. The measurement for satisfaction was based on a 7-point bipolar scale anchored by "very frequent/not at all," "excellent/very poor" and "very satisfied/very unsatisfied" (Cronin & Taylor, 1992). An

example of a satisfaction item is, "How often will you use this fantasy sports website in the future?" In the attitude section, the respondents were asked their general thoughts associated with fantasy sports participation. The measurement for attitude was based on three 7-point bipolar scales. The first scale was anchored by "good/bad," "favorable/unfavorable" and "pleasant/unpleasant" (Mackenzie & Lutz, 1989). The second scale was anchored by "good/bad," "favorable/unfavorable" and "satisfactory/unsatisfactory" (Bruner & Hensel, 1992). The third scale was anchored by "very likely/very unlikely," "probable/improbable" and "possible/impossible" (Yi, 1990). An example of an attitude item is, "From all of my knowledge about fantasy sports, I think that participating in fantasy sports would be." Overall, the study contained nine questions related to the attitude variable.

Data Analysis

The collected data were analyzed for the scale properties using the Statistical Package for the Social Science (SPSS) 17.0 and AMOS 7.0. For the descriptive statistics and internal consistency reliability, SPSS 17.0 was employed. The internal consistency reliability was investigated using Cronbach's alpha for each factor. Confirmatory Factor Analysis (CFA) was used to determine the relationships between the observed and latent variables and examine the reliability and validity of the constructs. Structural Equation Modeling (SEM) was conducted to test the hypothesized relationships among each construct. To adequately assess the goodness-of-fit and parsimony of the model, a chi-square with related degrees of freedom (df), the Root Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI), and the Standardized Root Mean Square residual (SRMR) were examined.

Results

Of the 279 respondents, 74.9% were between the ages of 18 and 39. Approximately 96% of the respondents were male (n=267). In addition, White/Caucasian was the most represented racial group (87.8%). With regard to the household income, 60.9% of the respondents had a household income of over \$50,000. Of the respondents, 32.3% played fantasy sports between 31 to 60 minutes each day, and 30.1% of the respondents played fantasy sports many times each day. The favorite fantasy sport among the respondents was football (38.0%) and the favorite fantasy sports website was Yahoo! Fantasy Sports (62.4%).

The study's findings both identified the dimensions of perceived service quality associated with fantasy sports participants and illustrated the relationships among each construct (e.g., service quality, customer

satisfaction, attitude, actual usage of fantasy sports). The first results section included the analysis of the measurement model of perceived service quality. The second and third results sections involved the structural equation modeling analysis to understand a comparison of the proposed and rival models.

Measurement Model of Service Quality

To assess the goodness-of-fit measurement model, the root mean square error of approximation (RMSEA), comparative fit index (CFI), and standardized root mean square residual (SRMR) were measured. The Satorra–Bentler scaled chi-square ratio ($S-B \chi^2/df = 1.842$) was lower than the recommended value of 3.0 (Kline, 2005). The RMSEA value was .055, which was lower than the suggested value of .08 (Browne & Cudeck, 1993). The CFI value was .968, which was greater than the suggested value of .90 (Bollen & Stine, 1993). The SRMR value was .047, which was satisfied with the standards of .05, .08, and .10 (Kline, 2005). The results of the measurement model are summarized in Figure 1.

To assess the reliability and validity of the latent constructs, Cronbach’s alpha, construct reliability, and the Average Variance Extracted (AVE) were measured (Table 1). The Cronbach’s alpha values of service quality dimensions were greater than the recommended

value of .70 (Nunnally & Bernstein, 1994) and ranged from .77 (trust) to .91 (appearance). The construct reliability coefficients ranged from .79 (ease of use) to .91 (appearance) and all of the coefficients were greater than the suggested value of .60 (Bagozzi & Yi, 1988). The average variance extracted (AVE) scores also exceeded the suggested value of .50 (Bagozzi & Yi). The significance of the factor loadings was measured to test the convergent validity. All of the factor loadings were statistically significant at the $p < .05$ level with the critical ratios ranging from 8.01 to 23.46, providing evidence of convergent validity (Rahim & Magner, 1996).

Furthermore, discriminant validity was examined to measure the relationship among the latent variables (Kline, 2005). Table 2 shows the correlation between each factor. The results of the factor correlations were not excessively high ($< .85$; Kline, 2005), which supported the evidence of discriminant validity.

Test of the Proposed Model

The structural model was tested using the root mean square error of approximation (RMSEA), comparative fit index (CFI), and standardized root mean square residual (SRMR). The structural model fit the data well (i.e., $S-B \chi^2/df = 1.983$, $RMSEA = .059$, $CFI = .95$,

Figure 1.
Measurement Model of Service Quality

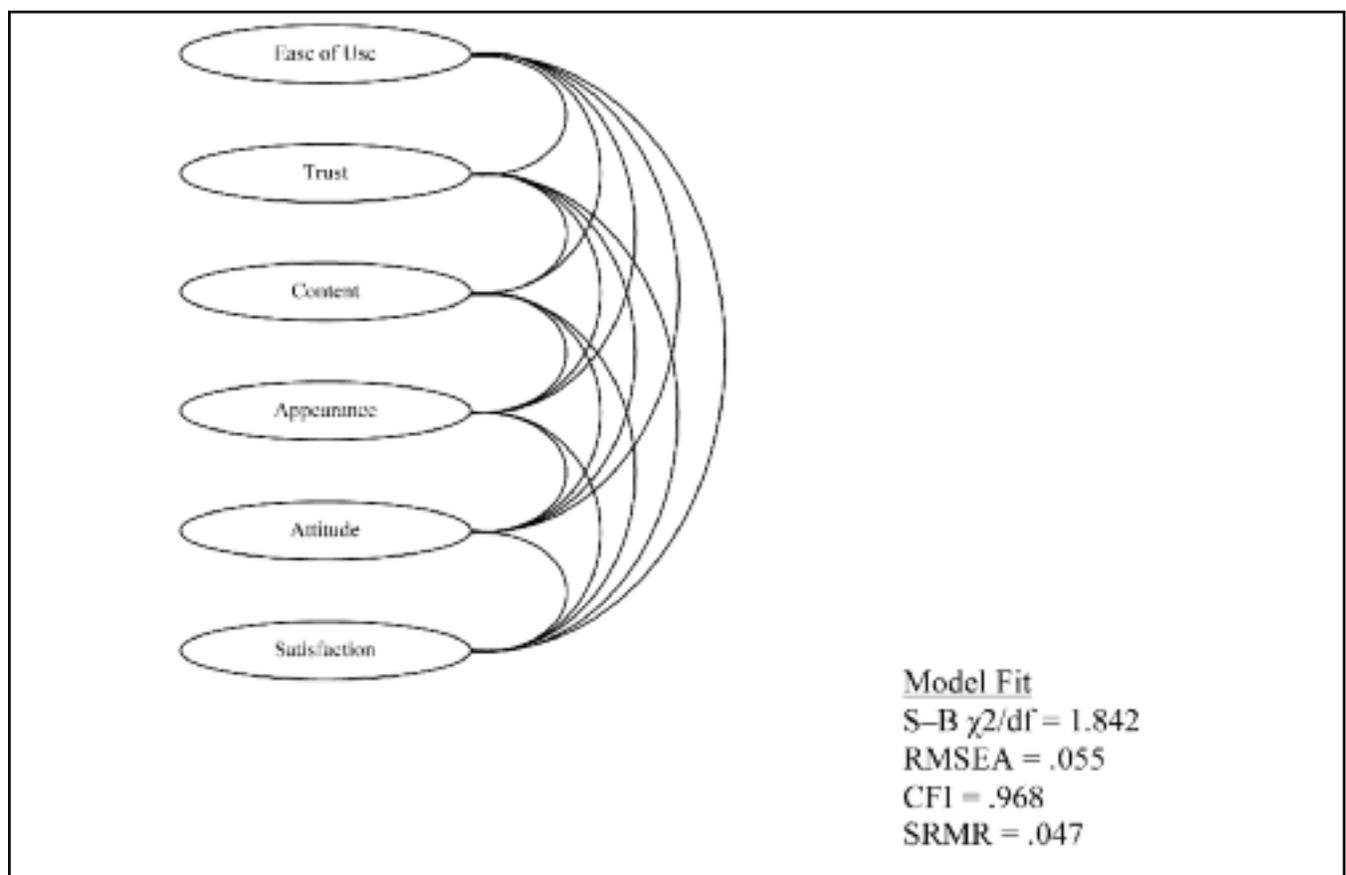


Table 1.**Cronbach's alpha (α), Loadings, Construct Reliability (CR), Average Variance Extracted (AVE), and Means**

Factor and Items	Loading	CR	AVE	Means
Ease of Use ($\alpha = .78$)		.79	.55	
EU 1: The online content related to fantasy sports was easy to follow.	.74			4.34
EU 2: I can easily log on to my fantasy sports account.	.73			4.65
EU 3: The structure of this fantasy sports website is well-organized.	.76			4.44
Trust ($\alpha = .77$)		.82	.61	
TR 1: I trust this website with my personal information.	.63			3.83
TR 2: I am comfortable participating in fantasy sports on this website.	.83			4.48
TR 3: This fantasy sports website has safe and fun environment.	.86			4.39
Content ($\alpha = .86$)		.87	.69	
CON 1: This fantasy sports website updates regularly.	.76			4.31
CON 2: The fantasy sports pages on this website have enough content such as statistics in players' news to meet my needs.	.88			4.25
CON 3: The information contained on this fantasy sports website is accurate and relevant.	.85			4.30
Appearance ($\alpha = .91$)		.91	.78	
AP 1: The fantasy sports pages on this website have visually appealing features.	.91			3.91
AP 2: The fantasy sports pages on this website use multimedia features properly.	.83			3.87
AP 3: The fantasy sports pages on this website look attractive.	.92			3.89

Table 2.**Factor Correlations among Service Quality Construct**

	AP	CON	TR	EU
AP				
CON	.59			
TR	.56	.59		
EU	.49	.63	.69	

Note. EU=Ease of Use; TR=Trust; CON=Content; AP=Appearance

SRMR = .067) and all of the loadings were statistically significant (Figure 2).

In addition, Table 3 included path coefficients for the hypothesized relationships for H1, H2, and H3. The results of the structural equation model showed that all of the path coefficients for the three hypotheses were statistically significant at the $p < .05$ level. H1 was supported by a positive and significant path coefficient from perceived service quality to satisfaction (.73, $p < .05$). Therefore, this result explains that service quality leads to customer satisfaction. H2 was supported by a positive and significant relationship between satisfaction and attitude (.33, $p < .05$). This supported hypothesis means that customer satisfaction predicts attitudes. Lastly, H3 was supported by a positive and

significant path coefficient (.20, $p < .05$). Thus, this finding shows that attitude is a significant antecedent of actual usage. Overall, the perceived service quality of fantasy sports participants influenced actual usage of fantasy sports through the participants' satisfaction and attitude toward fantasy sports participation. To be exact, satisfaction and attitude acted as mediating variables connecting service quality and actual usage, which supported H4.

Test of the Rival Model

To further confirm the role of satisfaction and attitude as mediating variables, a comparison was made between the proposed model and a rival model. The following criteria were used to compare the two models: overall model fit, statistically significant path coefficients, and parsimony (James, Mulaik, & Brett, 1982; Morgan & Hunt, 1994). Table 3 presents comparisons between the proposed and rival models. The comparative fit index (CFI) for the rival model was lower than the proposed model (.954 versus .904) and only one hypothesized path coefficient in the rival model was supported at the $p < .05$ level. In contrast, all of the hypothesized path coefficients in the proposed model were statistically significant at the level of $p < .05$. The value of the Akaike Information Criterion (AIC)

Figure 2.
Proposed Model of Service Quality, Satisfaction, Attitude, and Actual Usage

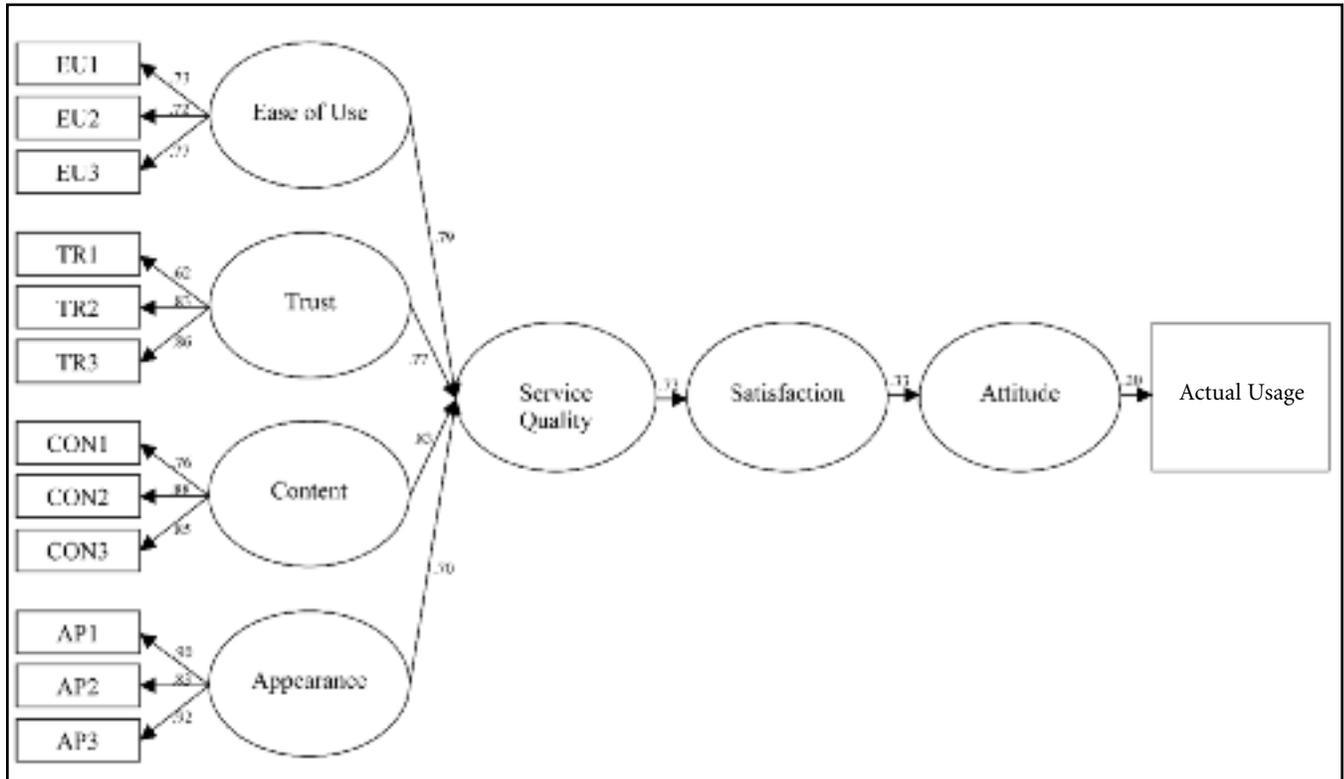


Table 3.
Analysis of Competing Model for Actual Usage

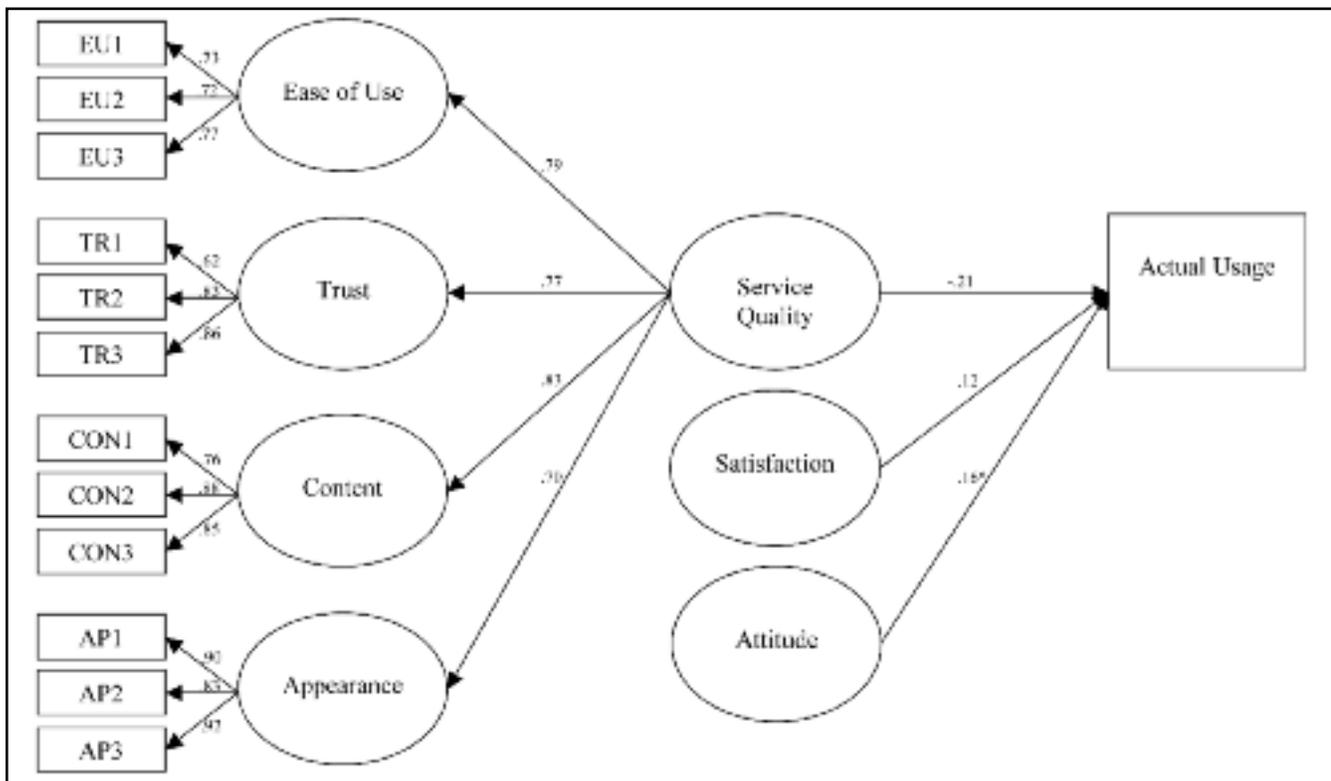
Proposed Model Path	Estimate	Rival Model Path	Estimate
Service Quality → Satisfaction	.475*	Service Quality → Actual Usage	-.021
Satisfaction → Attitude	.244*	Satisfaction → Actual Usage	.123
Attitude → Actual Usage	.158*	Attitude → Actual Usage	.163*
S-B $\chi^2/df = 1.983$, RMSEA = .059, CFI = .95, SRMR = .067, AIC = 377.48		S-B $\chi^2/df = 3.065$, RMSEA = .086, CFI = .90, SRMR = .191, AIC = 535.438	
Note. *p<.05.			

assessed the parsimonious concern for the comparison of the proposed model with the rival model. The AIC value indicated that the proposed model performed much better than the rival model. Therefore, both satisfaction and attitude were considered mediating variables between service quality and actual usage. That is, the results supported H4, which predicted that fantasy sports participants' satisfaction and attitude would be mediating effects between perceived service quality and actual usage.

Discussion

The purpose of this study was to examine the perceptions of service quality of fantasy sports participants and to identify the relationship between service quality, satisfaction, attitude, and actual usage. This study compared the proposed model with a rival model to better understand the role of satisfaction and attitude as mediating variables. Previous electronic service quality scales (e.g., Parasuraman et al., 2005; Zeithaml et al., 2002) were used as the conceptual framework and the developed four service quality dimensions (i.e., ease of use, trust, content, and appearance) had similarities with previous service quality studies (Loiacono et al., 2002; Wolfenbarger & Gilly, 2002; Zeithaml et al., 2002).

Figure 3.
Rival Model of Service Quality, Satisfaction, Attitude, and Actual Usage



For the dimension of appearance, the results supported previous research, which stated that visual factors of websites were significant determinants in regard to customer perceptions as to why they visited websites (Zeithaml et al., 2002). In other words, the appearance of fantasy sports websites, which include animation, video, and other multimedia effects might have an influence on customer responses and gain their attention. In addition, the content dimension, which refers to website resources, was one of the important factors for fantasy sports participants. Major fantasy sports providers, such as ESPN, Yahoo! Sports, and CBS Sports, have spent an increasing amount of money to improve the quality of their sites, especially the visual effects and differentiated information (e.g., news, game predictions, statistics). FoxSports.com recently introduced a plan in regard to the redesign of its site, which focused on video parts and scorebar design (Fisher, 2009). Thus, the findings of this study as related to the appearance and content dimensions were not surprising as they confirmed a phenomenon already known to be happening in the fantasy sports website segment of the sport industry. The trust dimension, which is apparently a major concern for Internet users, was found to be a critical factor of service quality for fantasy sports websites. One possible explanation for this finding is that people are still hesitant to use the Internet to share their personal information, such as

address, credit card, and financial information. Consequently, people tend to select the fantasy sports leagues and websites that are perceived as being trustful and reliable as these websites have a higher perceived level in regard to the protection of personal information than other websites. Finally, the ease of use dimension was the key elements to building customer loyalty. Such findings are in line with previous research in other areas of online interactions (Novak, Hoffman, & Yung, 2000; Zeithaml et al., 2002). One could conclude from this finding that a variety of functions (e.g., search engine, live help, loading speed) on fantasy sports websites might be essential to attract both experienced and new fantasy sports participants.

After identifying the perceived service quality dimensions associated with fantasy sports participants, the structural model was tested to understand the relationships among perceived service quality, satisfaction, attitude, and actual usage. In a comparison between the two models, the proposed model showed better performance than the rival model in terms of overall model fit, statistically significant path coefficients, and parsimony. That is, fantasy sports participants' satisfaction levels and attitudes toward fantasy sports participation were mediating effects and, thus, linked perceived service quality and actual usage. This result was in line with previous studies (Woodside et al., 1989; Zeithaml et al., 2002), which have proposed that

the service quality model is parsimonious and, thus, does not permit a direct relationship between service quality and actual usage. According to Zeithaml et al. service quality provokes customer satisfaction, loyalty, and behavioral intention. In addition, Woodside et al. (1989) suggested that an indirect effect exists between service quality and behavioral intentions and, therefore, consumer satisfaction was regarded as a mediating effect between service quality and behavioral intentions. The results of this study also found the following relationships were positively and significantly related: (1) perceived service quality and satisfaction, (2) satisfaction and attitude, and (3) attitude and actual usage. These results show that the first three hypotheses were supported by previous research (e.g., Harris & Goode, 2004; Johnson et al., 2006). Researchers (e.g., Woodside et al., 1989) have demonstrated that customer satisfaction is a significant predictor of consumer attitude and influences behavioral intentions, and repeat purchases. Furthermore, many researchers have proven that higher satisfaction brings greater customer loyalty, which refers to positive attitude (Anderson & Sullivan, 1993; Fornell, 1992). Overall, the findings of the study illustrate that fantasy sports participants who were satisfied with the service quality provided by fantasy sports websites were more likely to have positive attitudes toward fantasy sports participation. Further, the positive attitudes toward fantasy sports participation had significant influence on actual usage of fantasy sports.

Implications and Limitations

This study revealed several interesting findings and, consequently, provides plenty of insight for both sport marketing academics and practitioners regarding the participants and facilitation of online fantasy sports.

For academics, this study suggested a reliable and valid instrument for evaluating the perceived service quality of fantasy sports participants. In addition, the proposed model was built upon the findings of previous research and provided the rationale for understanding the relationships among factors associated with fantasy sports participants. However, some limitations were found. This study utilized a convenience sampling method from only four fantasy sports websites. Thus, future studies need to collect data from a variety of fantasy sports websites (e.g., CBSsports Fantasy Sports, Fanball.com, Head2head.com), which might provide different services and products.

Furthermore, this study was one of the first known attempts at understanding perceptions of service quality as related to fantasy sports participants and the relationships among various factors in the fantasy sports context. Thus, there is a need for sport researchers to develop more reliable and valid measures to be used

within different conditions. For example, different samples (i.e., a group that contains more females or a more varied racial category) should be examined to better understand fantasy sports participation perceptions.

For practitioners in the sport industry, the findings of this study are valuable in further understanding fantasy sports participants' needs and preferences. Furthermore, the results can assist sport marketing professionals in becoming more aware of the influence of service quality on participants' satisfaction, attitudes, and actual usage. For instance, the identified four service quality dimensions (i.e., ease of use, trust, content, and appearance) may be used to develop marketing strategies focused on a better quality of service and an increased variety of information (e.g., score projection, injury lists, game prediction, draft kits). Furthermore, participants' satisfaction and attitudes were found to be very significant elements linking perceived service quality and actual usage of fantasy sports websites. Thus, sport marketers need to comprehend the service quality dimensions that would influence participants' satisfaction levels. Finally, based on the findings of this study, fantasy sports providers can devote their management resources to the service quality attributes and improve in providing better quality service to attract both experienced and new fantasy sports participants.

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