

2010

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Shapiro, Stephen L., "Does Service Matter? An Examination of Donor Perceptions of Service Quality in College Athletics" (2010). *Human Movement Sciences Faculty Publications*. 19.
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Original Publication Citation

Shapiro, S. (2010). Does service matter? An examination of donor perceptions of service quality in college athletics. *Sport Marketing Quarterly*, 19(3), 154-165.

Does Service Matter? An Examination of Donor Perceptions of Service Quality in College Athletics

Stephen L. Shapiro

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Abstract

Service quality has been recognized as a strategic tool for improving organizational performance. Many non-profit organizations have taken a market-based approach to fundraising, which enhances the importance of service excellence. The purpose of this investigation was to examine donor perceptions of service quality in college athletics. First, an adapted version of Sargeant's (2001) non-profit service quality instrument was examined to assess its appropriateness within the context of college athletic donors. Confirmatory factor analysis (CFA) and validity and reliability analyses provided evidence of an adequate model fit. Subsequently, three multiple linear regression models were developed to examine the relationship between service quality and donor satisfaction, donor longevity, and gift amount. The results indicated a significant relationship between service quality and donor satisfaction. However, a direct relationship between service quality and donor behavioral outcomes was not found.

Introduction

The delivery of high quality service is one of the most important aspects of any service organization (Pride & Ferrell, 2003). The quality of service provided can lead to additional sales and repeat customers. Based on the abstract nature of service characteristics, customers will look for evidence of quality service. This evidence can be found through employees, location, price, and communication material (Kotler & Keller, 2006). In service organizations, the level of quality is the most important factor in customer satisfaction (Zeithaml & Bitner, 2000). Subsequently, measurement and evaluation of customer perceptions of service quality is extremely valuable.

The impact of service perceptions is evident within the non-profit sector. Service quality has been shown to influence donor satisfaction, retention, commitment, and lifetime value (Sargeant, 2001; Sargeant, West, & Ford, 2001; Shiu, Vaughan, & Donnelly, 1997). The importance of understanding the impact of service quality has increased for two reasons. First, the current economic climate has presented new fundraising challenges. According to Giving USA (2009), charitable giving in the United States decreased by 5.7% in 2008 (after adjustment for inflation), which is the first

decline in contributions since 1987 and one of the steepest declines since 1974. The decrease in fundraising revenue has forced non-profit organizations to do more with limited resources. Second, donors have a variety of options in terms of voluntary support. The number of non-profit organizations registered with the IRS was 1.4 million in 2005, which was a 27.3% increase over a 10-year period (Blackwood, Wing, & Pollack, 2008). Due to increased competition for charitable contributions, non-profit organizations have transitioned to a market-oriented approach to managing the donor/organization relationship (Vaughan & Shiu, 2001). As a result, the value of service quality and donor perceptions of service is apparent within the non-profit sector.

The importance of service quality has been investigated in non-profit organizations (Brady, Noble, Utter, & Smith, 2002; Sargeant, 2001; Vaughan & Shiu, 2001). These studies have examined the nature of services and the impact of perceived service quality on donor behavior. There has also been a wealth of service quality research in sport, including spectator sport (Greenwell, Fink, & Pastore, 2002; McDonald, Sutton, & Milne, 1995; Murray & Howat, 2002), recreational sport (Crompton, MacKay, & Fesenmaier, 1991; Ko &

Pastore, 2004, 2005), and sport tourism (Shonk & Chelladurai, 2008). However, service quality research in the area of college athletic fundraising is non-existent. Current athletic departments rely heavily on charitable contributions as a revenue source. Fundraising accounts for approximately 25% of generated revenue for Football Bowl Subdivision (FBS) institutions and 27% of generated revenue for Football Championship Subdivision (FCS) institutions, respectively (Fulks, 2009). Due to the increasing need for voluntary support in college athletics and the influence of service quality perceptions in the non-profit sector, it is critical to explore the value college athletic donors place on service excellence.

In addition, college athletic departments are unique in that they depend on charitable contributions, but are not considered a charity. According to Brady et al. (2002), organizations that produce revenue by offering a service, yet generate supplemental income through donations are considered charitable hybrids. Brady et al. developed the services-philanthropic giving model, which provides a conceptual framework for understanding the relationship between service perceptions and charitable contributions through an examination of university fundraising. The service-related portion of this framework may also be applicable to college athletic development.

Thus, the primary purpose of this investigation was to examine donor perceptions of service quality in college athletics. First, the construct of service quality was analyzed within the context of college athletic donors. Previous research has identified service quality as a multi-dimensional construct in a variety of for-profit and non-profit organizations (Cronin & Taylor, 1992; Parasuraman, Zeithaml, & Berry, 1985, 1988; Sargeant, 2001; Schneider & White, 2004). However, service quality has not been examined with a sample of college athletic donors. Second, service quality was measured to understand its influence on donor satisfaction. Previous research has shown a positive relationship between service quality and customer satisfaction (Brady et al., 2002; Cronin, Brady, & Hult, 2000; Cronin & Taylor, 1992). Specifically, Brady et al. found a significant relationship between these constructs and future donor intentions in higher education. Finally, service quality was measured to understand its influence on donation behavior outcomes, specifically, donor longevity and donation amount. There is evidence of a service quality influence on donor longevity in the non-profit sector (Sargeant, 2001; Sargeant et al., 2001); however, this relationship has not been investigated with college athletic donors. The influence of service quality on gift amount has not been previously examined. A better understanding of the impact

of service quality and its relationship to both donor satisfaction and donor behavior outcomes can help athletic departments develop strategies to recruit and retain contributors.

Review of Related Literature

The Service Quality Construct

Considerable attention has been given to the development of an instrument to measure the construct of service quality in order to understand its impact on organizational success. Parasuraman et al. (1985) performed an exploratory investigation of service quality and developed an initial service quality scale entitled SERVQUAL. The researchers identified gaps between consumer expectations and organizational performance. Ten determinants of service quality were developed from this investigation (Reliability, Responsiveness, Competence, Access, Courtesy, Communication, Credibility, Security, Understanding, and Tangibles). Parasuraman et al. (1988) used this service quality framework to extend SERVQUAL. Through a process of revisions and pilot tests, a 44-item, five factor instrument was developed. The model measured consumer expectations of 22 service quality items and perceptions of performance regarding those same 22 items. The five factors (Tangibles, Reliability, Responsiveness, Assurance, and Empathy) incorporated all of the themes from the original framework.

Parasuraman et al. (1988) laid the groundwork for the examination of service quality in multiple industries; however, there have been issues in using this instrument across various fields. Schneider and White (2004) mention that a variety of studies using SERVQUAL have found different factor structures. In addition, scholars have argued that the traditional structure of SERVQUAL does not provide a complete evaluation of a consumer's service quality perceptions (Cronin & Taylor, 1992; Finn & Lamb, 1991). The SERVQUAL instrument may have to be modified to fit the unique qualities of different industries. Other authors have developed industry-specific service quality instruments based on the SERVQUAL framework including the Retail Service Quality Scale (Dabholkar, Thorpe, & Rentz, 1996) for the retail industry, and QUESC for sport consumers (Kim & Kim, 2005)

The original SERVQUAL instrument measured service quality through a disconfirmation model. The disconfirmation model examines the difference between consumer expectations and consumer perceptions of organizational performance (Vaughan & Shiu, 2001). This gap between expectations and performance helps determine the extent of service quality through the eyes of the consumer. Significant attention has been given to

the effectiveness of the disconfirmation approach. There is evidence in the service marketing literature suggesting the benefits of focusing specifically on a more parsimonious, performance-based measure (Bolton & Drew, 1991; Cronin & Taylor, 1992, 1994). Cronin and Taylor (1992) re-examined the SERVQUAL structure in terms of consumer attitudes and satisfaction. The authors contend that the SERVQUAL instrument is focused on the perceived level of consumer satisfaction because it uses a disconfirmation model where an assessment of attitudes toward service quality would be a more accurate measure.

Cronin and Taylor (1992) developed SERVPERF, which is an attitudinal-based service quality instrument. The SERVPERF instrument reduced the size of the original SERVQUAL instrument in half by eliminating the expectation/performance gap structure and measuring consumer attitudes through one set of the original 22 service quality items. Most empirical evidence supports the use of a more parsimonious measure of service quality (Cronin & Taylor, 1994). Additionally, Cronin and Taylor contend that an attitudinal based measure “better reflects long-term service quality attitudes in cross-sectional studies” (p. 127).

Service Quality in Non-Profit Organizations

As mentioned previously, there has been limited research on service quality within the non-profit sector and literature on service perceptions within the area of college athletic fundraising is non-existent. Service quality has been identified as a factor that may influence donor satisfaction and donor behavior, but additional research is needed to examine the relative importance of service quality within this environment. Shiu et al. (1997) examined the portability of the SERVQUAL instrument within the context of the voluntary sector. The authors concluded that donor service quality perceptions have value and influence; however, the SERVQUAL measure must be refined in order to be an effective measure of donor service quality perceptions.

From a non-profit perspective, performance-based measures of service quality have been used to assess donor attitudes toward the level of service provided by charitable organizations. Brady et al. (2002) used an adapted attitudinal service quality measure to examine service perceptions in their study of donations to higher education. Empirical evidence supported the use of a performance-based measure in this examination; however, a three-item, uni-dimensional measure of service quality was used as part of a larger service model examining aspects of service quality, value, sacrifice, and satisfaction. A multi-dimensional instru-

ment focused specifically on service quality perceptions was not tested.

Sargeant (2001) used a modified service quality instrument to measure performance-based attitudes. Sargeant measured the effect of service quality on donor retention. A sample of donors from multiple charities in the United Kingdom was surveyed for this study. Perceptions of donor service quality were examined to determine if the quality of service may have an impact on donor attrition. A modified SERVQUAL/SERVPERF scale was used that focused on attitudes, consistent with Cronin and Taylor (1992). An Exploratory Factor Analysis (EFA) was conducted on the adapted service quality instrument and three factors were identified from the analysis:

Responsiveness: The focus of this sub-dimension is the organizational response to donors. The organization provides personal attention and meets the needs of donors. In addition, the organization is quick to respond to issues or questions.

Feedback: This factor refers to the ability of the organization to communicate clearly to donors and provide timely feedback. The organization provides courteous and convenient communication to individual donors. Additionally, the organization provides accurate information on how donations are being utilized.

Effectiveness: This sub-dimension refers to donor confidence that the organization cares about its stakeholders. Donations are used appropriately and the organization delivers on promises to donors.

Sargeant's (2001) adapted donor service quality instrument provides aspects of Cronin and Taylor's (1992) attitudinal SERVPERF instrument, along with unique sub-dimensions that appear to capture facets of the donor/non-profit organization relationship. The modification of previous service quality measures in the for-profit sector further supports the notion that service quality measures must be flexible for different types of industries.

Sargeant's (2001) adapted donor service quality scale may be applicable in terms of college athletic donors; however, further investigation is warranted. First, the adapted service quality scale was assessed with only one sample using an exploratory data reduction technique. The factor structure identified by Sargeant provides a conceptual foundation for future examination, but the factor structure should be confirmed in order to evaluate an appropriate model fit. Second, reliability and validity measures were not assessed for the adapted service quality instrument. Reliability and validity-related evidence will provide further support for this specific measure of service quality within the context of charitable contributors. Finally, a sample of college athletic

donors has not been examined. Service quality perceptions may be different for college athletic donors compared to the traditional non-profit donor population.

An understanding of the attributes of service quality in the non-profit sector is essential when investigating donor perceptions in college athletics. Non-profit organizations will differ from for profit organizations in terms of perceptions of service quality (Vaughan & Shiu, 2001). Furthermore, according to Schneider and White (2004), components of service quality can vary from industry to industry based on the characteristics of consumers. The population of college athletic donors is unique in terms of characteristics (Hammersmith, 1985; Shulman & Bowen, 2001) and motivations (Billing, Holt, & Smith, 1985; Gladden, Mahony, & Apostolopoulou, 2005; Mahony, Gladden, & Funk, 2003). These factors present a unique service environment for college athletic departments. An examination of the importance of service quality in this environment will provide athletic departments with valuable information regarding their relationship with donors and perceptions of service in the area of college athletic development.

Service Quality, Satisfaction, and Donor Behavior Outcomes

Service quality and satisfaction are closely related facets of consumer perceptions. There is a relationship between these constructs, but they are not identical. According to Parasuraman et al. (1988) service quality is an attitude or judgment. Quality perceptions are based on a consumer's appraisal of the product or service (Zeithaml, 1988). Satisfaction, on the other hand, is based specifically on the transaction. It is a response to a product or service-related consumption experience (Linder-Pelz, 1982). For example, it is possible for a consumer to be satisfied with a product or service even though a high level of service was not provided. Still, consumer attitudes formed by the level of service provided can influence overall satisfaction.

There has been some discrepancy regarding the relationship between these two variables. Some authors argue that satisfaction acts as an antecedent to service quality (De Ruyter, Bloemer, & Peeters, 1997; Rust & Oliver, 1994; Swan & Bowers, 1998). The rationale for this relationship is that transactions that are considered satisfactory over time will create a positive perception of service quality. Other authors have made the argument that service quality acts as an antecedent to customer satisfaction (Brady et al., 2002; Cronin & Taylor, 1992; Gotlieb, Grewal, & Brown, 1994; Parasuraman et al., 1985, 1988). Therefore, as the perception of quality service increases, customers are more likely to be satisfied with their overall experience. Cronin and Taylor

examined these relationships and provided empirical support that service quality should be considered an antecedent of customer satisfaction. Service quality is one of many indicators (i.e., price, value, convenience) which influence overall customer satisfaction.

Brady et al. (2002) examined this relationship with college students (who will become potential donors) as part of a larger giving model. Their findings were consistent with Cronin and Taylor (1992). Sargeant (2001) investigated overall donor satisfaction and found that donors who scored high in perceptions of satisfaction were 1.8 times more likely to remain active contributors; however, the relationship between service quality and donor satisfaction was not examined. Perceived service quality by athletic donors may also have an influence on overall satisfaction.

Previous research has also focused on the influence of service quality and customer satisfaction on purchase intentions in a variety of industries (Baker & Crompton, 2000; Cronin & Taylor, 1992). These studies found a direct relationship between service quality and purchase intentions. Other studies have found that service quality indirectly influences purchase intentions through customer satisfaction (Gotlieb et al., 1994; Shonk & Chelladurai, 2008). In terms of donor behavior, Brady et al. (2002) found that service quality (among other indicators) played a significant role in donor satisfaction; however, the relationship between satisfaction and giving intent was not significant. Additionally, Sargeant (2001) found that service quality had a significant impact on donor longevity. Donors who perceived the level of service to be high were likely to be loyal contributors. Sargeant did not examine the influence of satisfaction on donor length.

In summary, there have been some contradictory findings regarding the relationships between service quality, satisfaction, and donor behavior. The literature on these variables within the non-profit sector is limited and research has not been conducted with college athletic donors specifically. There may be existing relationships between service quality, donor satisfaction, and donor behavior within the context of college athletic development. Further investigations are needed to provide additional evidence of an existing relationship between these variables.

Methods

Sample

The population for the current study consisted of current college athletic donors. An online survey was sent to all current donors from an NCAA Division I institution located in the mountain region of the United States. The athletic department of interest competes at

the Football Bowl Subdivision (FBS) level, but is not a member of a BCS conference. The athletic programs at the institution being examined have a wealth of tradition and historical success; however, the revenue-generating sports have achieved only moderate success in the past decade. The donor list consisted of 1,800 current annual donors. A total of 502 usable surveys were returned for a response rate of 27.9%.

Instrumentation

The questionnaire used for the current study contained three sections with a total of 32 items. The first section had four items which focused on donor information such as donation amount, donor level, and total years as a donor. The second section was comprised of a 20-item, adapted version of Cronin and Taylor’s (1992) SERVPERF service quality instrument developed by Sargeant (2001). The adapted SERVPERF was created for use in the non-profit sector. One item was dropped because it was not relevant to college athletics. All 20 scale items used in the current study are reported in Table 1. These items were measured using a 5-point Likert scale ranging from 1 = Strongly Disagree to 5 =

Strongly Agree. The adapted service quality measure is made up of three sub-dimensions: Responsiveness (9 items), Feedback (8 items), and Effectiveness (3 items). Reliability was not reported in previous examinations using this scale in the non-profit sector. This was an important part of the data analysis process within the current study. The third section of the survey contained one item measuring overall donor satisfaction adapted from Sargeant. The satisfaction item was measured on a 5-point Likert scale ranging from 1 = Very Dissatisfied to 5 = Very Satisfied. The final section of the survey had seven items focused on demographics in order to profile the typical donor at the institution being examined.

Procedure

Questionnaires were administered through an online format. The athletic department used in the current study sent e-mails to all current donors. Each potential participant received an introductory e-mail explaining the purpose of the study along with a link to the web-based survey. A follow up e-mail was sent to all potential participants two weeks later in an effort to increase

Table 1.
Adapted Donor Service Quality Scale

Factors and Items	
Responsiveness	
	SQ11 - (Univ) Athletics gives me individual attention
	SQ12 - (Univ) Athletics has employees that give me individual attention
	SQ20 - Employees of (Univ) Athletics are never too busy to speak with me
	SQ14 - (Univ) Athletics employees seem to understand my specific needs
	SQ8 - Employees in the (Univ) athletics department have the knowledge to answer my questions
	SQ19 - (Univ) Athletics makes me feel like they are always willing to help if I have a question
	SQ1 - Employees of (Univ) Athletics are always courteous
	SQ15 - When I have a problem, (Univ) Athletics shows an interest in solving it
	SQ10 - (Univ) Athletics always responds promptly to requests I might have for information
Feedback	
	S13 - (Univ) Athletics writes to me at times of the year I find most convenient
	S6 - (Univ) Athletics communications are visually appealing
	S7 - (Univ) Athletic keeps me informed about how my money is being used
	S16 - (Univ) Athletics communications are always courteous
	S2 - (Univ) Athletics communications are always timely
	S9 - I feel confident that (Univ) Athletics is using my money appropriately
	S5 - I feel safe in my transactions with (Univ) athletics
	S3 - The behavior of (Univ) Athletics employees instills confidence
Effectiveness	
	S18 - (Univ) Athletics employees have the best interests of their supporters at heart
	S17 - (Univ) Athletics employees have the best interests of student-athletes at heart
	S4 - When (Univ) athletic promises to provide a service to student-athletes, it does so

response rate. In addition, an incentive in the form of entrance into a drawing for basketball conference tournament passes was offered to respondents. This information was kept separate from survey responses to maximize anonymity and confidentiality.

Data Analysis

A confirmatory factor analysis (CFA) was initially conducted on the adapted non-profit service quality instrument to examine the factor structure of the service quality construct based on the sample of current donors. Previous theory on service quality and scale development of SERVQUAL and SERVPERF (Cronin & Taylor, 1992; Parasuraman et al., 1985, 1988; Sargeant, 2001) drove specification of the factor model; therefore, CFA was the most appropriate factor analytic technique (Brown, 2006). Multiple measures of fit were used to examine the factor structure of the adapted non-profit service quality instrument. Overall goodness of fit was assessed using a robust chi-squared test. According to Hu and Bentler (1999), this test can be sensitive to sample size and should not be used exclusively in determining model fit. Consequently, standardized root mean square residual (SRMR), root mean square error of approximation (RMSEA), and the comparative fit index (CFI) were examined to provide additional sources of fit that are widely accepted in applied research and have shown satisfactory performance in model simulation analyses. SRMR assesses absolute model fit, RMSEA examines model parsimony, and CFI evaluates the fit of researcher specified factor solution (Brown, 2006). According to Hu and Bentler, SRMR values close to .08 or below, RMSEA values close to .06 or below, and CFI values close to .95 or greater provide evidence of adequate model fit.

Modification indices were subsequently examined to determine if revisions to the initial factor structure could improve model fit, and if revisions could be adequately justified based on prior research. Convergent and discriminant validity assessments were conducted on the final service quality solution. Average variance extracted (AVE) and correlations between factors were assessed for validity-related evidence. Additionally, alpha coefficients and average interitem correlations were examined within each factor of the adapted service quality instrument in order to assess internal consistency and reliability-related evidence.

Means and standard deviations were subsequently calculated for each sub-dimension of service quality. In order to examine the influence of the service quality factors on donor satisfaction, a multiple linear regression model was developed. The dependent variable was donor satisfaction and the independent variables were the three service quality factors (Responsiveness,

Feedback, and Effectiveness). However, the dependent variable in this model is not completely continuous due to the scaled nature of the donor satisfaction variable. Therefore, an ordinal regression procedure or PLUM (Polytomous Universal Model) was used to examine this relationship. According to Norusis (2008), the PLUM procedure is an extension of the general linear model that incorporates the ordinal nature of the dependent variable. Finally, standard OLS multiple linear regression models were also developed to examine the influence of service quality on donor longevity and donation amount.

Multiple linear regression assumptions were examined for these equations (Linearity, Independence, Normality, and Equality of Variances). Descriptive statistics, residual plots, and statistical tests for normality and equality of variances showed that none of the assumptions were violated in the regression equations. In addition, potential multicollinearity issues within the model were examined. Both variance inflation factors and tolerance statistics were examined for multicollinearity issues. The results suggested there were no multicollinearity issues in either of the regression equations used in the analysis. A significance level of .05 was established a priori in analyzing the regression models and related variable correlations.

Results

Demographic Profile

The typical current donor was male (76.9%), Caucasian (92%), and married (74.1%). The majority of current donors had at least a bachelor's degree (86.1%), an annual household income of \$100,000 or more (55.9%), and reside in the same state as the institution being examined (85.9%). In addition, the average donor age was 50.6. In terms of donation information, the average annual donation was \$732.15 and the average length of annual giving was 9.48 years.

Confirmatory Factor Analysis

Table 1 provides information on each of the three donor service quality factors and their respective items. CFA was conducted on the adapted three-factor, 20-item donor service quality model. The results indicated that the data fit the model well. Absolute fit, parsimony correction, and comparative indices all represented a reasonable fit: $X^2(167) = 611.35$, $p = <.001$; RMSEA = .073; SRMR = .057; CFI = .98. An examination of modification indices indicated the presence of correlated residuals. Allowing multiple correlated residuals to be estimated would have improved the overall model fit, but none of these could be justified conceptually. The final model consisted of three sub-dimensions of

Table 2.
Reliability and Validity Scores for the Adapted Donor Service Quality Scale

Factors and Items	Mean		α	Factor loading	AVE	SE	t
	ITTC	interitem correlation					
Responsiveness		.559	.92		.65		
SQ11	.74			.80		-	-
SQ12	.73			.78		.03	30.68*
SQ20	.77			.87		.03	31.14*
SQ14	.70			.77		.04	23.67*
SQ8	.65			.78		.04	24.19*
SQ19	.78			.89		.03	32.81*
SQ1	.58			.72		.04	21.13*
SQ15	.73			.80		.04	25.76*
SQ10	.75			.83		.04	28.18*
Feedback		.423	.85		.50		
SQ13	.55			.64		-	-
SQ6	.62			.67		.08	13.01*
SQ7	.53			.60		.08	12.31*
SQ16	.60			.75		.08	14.91*
SQ2	.60			.71		.07	15.56*
SQ9	.62			.74		.08	15.07*
SQ5	.55			.69		.08	13.80*
SQ3	.69			.85		.08	15.86*
Effectiveness		.548	.78		.63		
SQ18	.57			.85		-	-
SQ17	.69			.79		.04	21.59
SQ4	.62			.73		.05	18.22

Note: * $p < .05$; ITTC = Item-to-total correlation; α = Cronbach's alpha coefficient; AVE = Average variance extracted; SE = Standard error; t = t -values

service quality. The Responsiveness factor contained a total of nine items; the Feedback factor contained a total of eight items; and the Effectiveness factor contained a total of three items. All t -values were greater than 2.0, which is considered satisfactory (Thompson, 2004). A summary of the anchors, factor loadings, t -values, and standard errors in the final donor service quality structure are presented in Table 2.

Validity and Reliability

Convergent and discriminant validity were used to provide validity-related evidence of the final donor service quality structure. First, convergent validity was assessed with reference to average variance extracted (AVE). According to Fornell and Larcker (1981), AVE scores above .50 indicate an adequate ratio of total variance that is due to the latent variable. Table 2 lists

the AVE scores for each of the three factors in the donor service quality scale. The AVE scores for each factor ranged from .50 to .65, which provides evidence of the scale's convergent validity. Second, discriminant validity was assessed to observe whether the factors were distinct from one another. AVE scores should be greater than the square of the correlations between factors to ensure discriminant validity (Fornell & Larcker, 1981). The AVE scores for all three factors in the service quality scale were greater than the squared correlations among the respective factors, providing evidence of the scale's discriminant validity.

The internal consistency of scores from the subscales of the adapted donor service quality instrument was estimated using alpha reliability (Cronbach's alpha estimation). Internal consistency was satisfactory with coefficient alphas above the standard .70 cutoff for all

Table 3.
Ordinal Regression Results (Dependent Variable = Donor Satisfaction)

Variable	Estimate	Wald	p-value
Responsiveness	1.35	27.37	<.001
Feedback	1.44	19.15	<.001
Effectiveness	.450	4.15	.042

Note: ($X^2(3) = 255.63, p < .001$), Nagelkerke $R^2 = .465$

three service quality sub-scales (Cronbach, 1951). In addition, item-to-total correlations (ITTC) and average interitem correlations were examined for each factor. According to Robinson, Shaver, and Wrightsman (1991) average inter-item correlations should be above .30 along with adequate coefficient alpha scores. Average inter-item correlations for the service quality scale were .559, .443, and .548 for Responsiveness, Feedback, and Effectiveness, respectively. Table 2 provides a summary of Cronbach's alpha estimates, ITTC, and average interitem correlations for the service quality scale.

Multiple Linear Regression

The first multiple linear regression equation examined the influence of service quality on donor satisfaction. Prior to regression analysis, Pearson correlations were conducted on donor satisfaction and each of three service quality sub-dimensions. Responsiveness, Feedback, and Effectiveness were all significantly correlated with donor satisfaction ($p < .001$). The ordinal regression equation was found to be significant $X^2(3) = 255.63, p < .001$. Table 3 provides a summary of regression statistics for the individual service quality sub-dimensions. All three service quality factors were found to be significant. An examination of coefficients indicates that the relationships between all three factors and satisfaction were positive and Feedback appeared to have the strongest influence. Strength of association was also examined through the Nagelkerke index, which is an evaluation of goodness of fit. This test is similar to that of R^2 in linear regression, but should not be looked at as explained variance in the dependent variable (Cohen, Cohen, West, & Aiken, 2003). The model had a Nagelkerke R^2 score of .465, indicating a satisfactory goodness of fit.

The second multiple linear regression equation examined the influence of service quality on donor longevity. This regression equation was not found to

be significant. The final multiple linear regression equation examined the influence of service quality on donation amount. The third multiple linear regression was not found to be significant as well. In summary, there was no evidence supporting the contention that service quality has an influence on donor longevity or gift amount for this particular sample of college athletic donors.

Discussion

The primary purpose of this study was to examine the construct of service quality within the context of college athletic fundraising. Service quality has been investigated in the non-profit sector (Brady et al., 2002; Sargeant, 2001; Vaughan & Shiu, 2001); however, research on college athletic donor service quality perceptions has been non-existent up until this point. Validity and reliability was examined on an adapted version of Sargeant's donor service quality scale with a sample of current college athletic donors. The service quality scale had satisfactory fit statistics and the three sub-dimensions (Responsiveness, Feedback, and Effectiveness) indicated adequate convergent and discriminant validity. Additionally, alpha reliability, ITTC, and average interitem correlations indicated sufficient reliability-related evidence. Therefore, the adapted donor service quality scale appears to be a satisfactory measure of service quality for the current sample of college athletic donors.

The secondary purpose of this study was to examine the influence of service quality on overall donor satisfaction and donor behavior outcomes (donor longevity and gift amount). The first multiple linear regression model indicated that service quality explained a significant portion of variability in donor satisfaction. All three service quality sub-dimensions were found to be significant predictors of donor satisfaction. However, the second and third regression models did not provide evidence of a significant linear relationship between service quality and donor longevity or gift amount. Although the lack of a significant relationship between service quality and donor behavior outcomes was unexpected, these results highlight the importance of understanding the unique role that service quality may play in college athletic fundraising. The following sections discuss theoretical and practical implications for sport managers.

Theoretical Implications

Preliminary assessments were conducted on the adapted donor service quality scale developed by Sargeant (2001). Results of the current study were consistent with Sargeant's examination of service quality in the non-profit sector. CFA clearly identified a three-factor

20-item structure. Only one item was deleted due to interpretability issues within the context of college athletic fundraising. These results provide evidence of an adequate measure of donor service quality within an athletic department setting. The three facets of donor service quality (Responsiveness, Feedback, and Effectiveness) provide a framework for investigations regarding the role of service quality in college athletic fundraising. Future examinations are necessary to cross-validate these findings with additional samples of college athletic donors. Still, the current findings support the use of a performance-based, attitudinal measure of college athletic donor service quality perceptions.

Results from the first research question indicated service quality explained a significant portion of the variability in donor satisfaction. These results are consistent with the previous literature (Brady et al., 2002; Cronin & Taylor, 1992; Gotlieb et al., 1994; Parasuraman et al., 1985, 1988). All three sub-dimensions of service quality had a significant influence on donor satisfaction. These findings provide additional support for a multi-dimensional measure of service quality within the voluntary sector. Responsiveness, Feedback, and Effectiveness are separate components of the donor service quality construct that affect donor satisfaction in different ways.

Results from the final research questions showed no significant service quality influence on donor longevity and/or gift amount. These findings were contrary to Sargeant's (2001) study in which service quality had a significant impact on donor length. The results present a number of theoretical issues regarding the importance of service quality in college athletic giving. First, the role service quality plays may be reduced in an environment such as college athletics due to other factors which could have a stronger impact on donor behavior. Previous research has shown a positive relationship between athletic success and charitable contributions to the institution as a whole (Baade & Sundberg, 1996; Grimes & Chressanthos, 1994) and athletic-specific giving (Humphreys & Mondello, 2007; Stinson & Howard, 2007). The influence of team success on donations may have a stronger impact on donor behavior compared to service quality perceptions.

Another example of a factor that may reduce the role of service quality is tangible donor benefits. Stinson and Howard (2004, 2007) suggested that athletic success increases donations due to a tangible exchange. Team success leads to an increase in demand for tickets, and spectators who want priority seating must make a charitable contribution. These benefits are one of the main motivations for athletic donations (Gladden et al, 2005; Mahony et al., 2003). The institu-

tion examined in this study has a preferred seating system for donors and has recent postseason appearances in revenue-generating sports. Therefore, the strength of these factors could have played a part in the limited influence of service quality on donor behavior.

Second, although service quality did not have a direct influence on donor behavior in this study, it did have a significant influence on donor satisfaction. Perhaps an indirect relationship exists between service quality and donor outcomes mediated by donor satisfaction. As noted in the review of literature, service quality models have identified this relationship (Gotlieb et al., 1994; Shonk & Chelladurai, 2008); however, this complete relationship has not been found in the fundraising literature. Brady et al. (2002) found a significant relationship between service quality and satisfaction, but not satisfaction and donor intentions. A model examining this relationship with college athletic donors may provide a better understanding regarding the role of service quality in this environment. Third, although the Sargeant (2001) donor service quality instrument fit the data well, perhaps there are other sub-dimensions of service quality that are not being measured by this scale. For example, the tangible exchange between the donor and the athletic department (Stinson & Howard, 2004, 2007) may offer unique service quality facets not identified through Sargeant's non-profit instrument. A modification of this instrument with additional service quality factors may be appropriate for college athletic fundraising research.

Finally, further examination of athletic donor service quality perceptions within the current study may shed some light on the lack of a significant relationship with outcome variables. The donor length variable was subsequently broken down into three categories: New Donor (1-2 years), Moderate Donor (3-7 years), and Loyal Donor (8+ years). Table 4 provides a summary of mean service quality scores for each group of donors. The results show a minimal difference in service quality perceptions between the three groups. It appears that scores for each sub-dimension of service quality are above the scale mid-point for all donors regardless of longevity. Current donors in this study indicated a satisfactory level of service across the board. These results provide evidence of a consistent level of service regardless of donor length. The importance of service quality may become more apparent when comparing current donors to lapsed donors who made a decision to stop contributing.

Practical Implications

The state of the current economy and the increase in options for voluntary support creates a more challenging environment for present day college athletic

Table 4.
Mean Service Quality Scores Broken Down by Donor Length

Variable	New Donor	Moderate Donor	Loyal Donor
Responsiveness	3.63	3.61	3.73
Feedback	3.71	3.74	3.84
Effectiveness	3.60	3.68	3.73

Note: New Donor = 1-2 years, Moderate Donor = 3-7 years, Loyal Donor = 8+ years, 5-Point Adapted Donor Service Quality Scale

departments. According to Shiu et al. (1997), in an adverse economic climate it is pivotal for fundraising organizations to adopt a management style that is more customer friendly. Donors are being more selective with their discretionary income. Improving or maintaining the level of service provided to donors can be a cost-effective cultivation strategy for college athletic departments.

From a practical standpoint, service quality is something that athletic development offices can control. The role of service quality may be reduced due to the importance of winning (and tangible benefits based on winning); however, an athletic fundraising office cannot control team performance and its effect on the value of ticket-oriented benefits. Athletic development offices can focus attention on providing a consistent level of service to donors regardless of team performance in order to take advantage of service quality effects on overall donor satisfaction.

The current study provides evidence of the relationship between all three of the service quality factors and donor satisfaction. College athletic departments can improve perceptions of responsiveness in a number of ways. First, it is essential for individual donors to understand the importance of their contribution, regardless of the amount. College athletic development offices must provide individual attention to donors. Thanking donors for their gift and communicating how contributions are being utilized are productive methods. Additionally, development officers must respond to the wants and needs of donors promptly and efficiently. These actions can help to create a customer-oriented relationship between the athletic department and the individual donor.

Second, proper feedback is essential to any donor/organizational relationship. Athletic departments must provide courteous and timely communica-

tion to all contributors. A variety of communication outlets can be used to offer effective feedback. Traditionally, mail and telephone communication were widely accepted; however, technological advances allow for a multitude of avenues for feedback, including e-mail, webpages, message boards, and texting. These types of communication offer more interaction between the athletic department and the donor. An interactive relationship, with multiple options for feedback, can strengthen the affiliation between the donor and the development office. These methods for improving perceptions of service can have tangible effects for the athletic department. The current study provided evidence of a positive relationship between service quality perceptions and donor satisfaction. Improvements in the level of service can be an effective recruitment and retention strategy with minimal costs to the athletic department.

Future Research

Future investigations are needed to understand the impact of service quality and confirm the adapted donor service quality scale as an appropriate measure of donor service perceptions. The current investigation confirmed the structure of Sargeant's (2001) donor service quality measure through the examination of one sample of athletic donors. Cross-validation with additional samples of athletic donors will enhance the generalizability of this measure. Additionally, other service quality sub-dimensions should be explored that may be relevant to the college athletic fundraising environment.

Service quality was not found to have an influence on donor behavior. Further investigations into this relationship are necessary. The development of a model testing a potential indirect relationship between service quality and donor outcomes through donor satisfaction is necessary. In addition, an examination of current donors and donors who recently stopped giving may identify a relationship between service quality perceptions and donor loyalty. Finally, the diverse motivations for making charitable contributions may influence the role that service quality plays on donor behavior. An examination of the relationship between service quality and donor motives could provide a better understanding of the role service quality plays for certain types of donors.

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