Sport Fans' Team Switching Behavior: The Link between Team Associations and Actual Team Switchers

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Abstract

Background: While the extant literature has focused on the impact of fans' perceptions on their behavioral intentions, fans' team switching behavior remains largely overlooked by sport marketing researchers.

Purpose: The purpose of this study was to examine the relationship between sport fans' team association types and fans' team switching behaviors.

Methods: Sample (n = 444) were collected from professional baseball fans using a purposive sampling method. Confirmatory factor analysis, measurement invariance, latent mean comparisons, and a binary logistic regression were used to examine the data.

Results: Latent mean analysis demonstrated significant group differences in team association types. In addition, the binary logistic regression showed that fans who were less associated team history and stadium community with the team were related to team switching behaviors.

Conclusions: Sport teams should develop a positive perception pertaining to off-field attributes among the fans that the teams attempt to care about fans and society, takes great pride in their support, and is willing to listen to them when any negative signs occur in the team.

Keywords: **team switching; team associations; fan identification**

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1. Introduction

Sport fan behavior research has been investigated for several decades. In particular, many researchers attempted to find various psychological factors to predict fan behavior (Doyle et al., 2021; Park et al., 2010). Most of the research aimed toward predicting fan behavior using psychological factors examined the relationship between levels of sport fans' loyalty and sport fan behavior (Park et al., 2011). Moreover, sport fans' responses to team success were hypothesized to reflect the psychological nature of fan-ship (Cialdini et al., 1976). However, while the extant literature has focused on the impact of fans' perceptions on sport fan behavior, fan's team switching behavior remains a largely overlooked research topic. Prior research has shown that it is important for a sport organization's long-term economic viability to keep and retain their fans, as it contributes to decreased marketing costs, increased sales, and eventually greater profitability (Gladden & Funk, 2002; Kunkel et al., 2014). In this respect, it is difficult to imagine that sport teams lose their fan base since losing a fan not only costs the expense of obtaining new fans, but also giving up revenues of game attendance. More importantly, sport teams could be negatively impacted by losing fans in terms of decreasing merchandise sales, interest in watching games on television or streaming outlets.

To protect team revenues resulting from potentially decreasing fan bases, it is critical for teams to understand the psychological associations fans have of their teams (i.e., team associations), especially when those perceived associations may result in losing fans. Given that the role of team associations and team identification has received great attention in the sport management literature (Wear & Heere, 2020), understanding what types of team associations are related to fans' switching behavior could provide critical information for sport teams that want to better understand the factors related to losing fans. Moreover, understanding team switching behavior would be vital source for expansion teams or recently relocated franchises in that they can avoid failing to attract potential fans. It is because new sport teams such as relocation and expansion confront enourmous challenges in that they do not have existing loyal fan bases or established team history (Daniels et al., 2019).

To date, there is a dearth of research regarding the team associations related to sport fans' switching behavior. For both sport marketing researchers and professional sport marketers, this lack of research limits the theoretical and practical implications of fans' perceived associations with their favorite teams. Considering the unique nature of fan behavior, an empirical examination of actual team switchers and reallocating their support to other teams is warranted. To fill the gap in the sport management literature, this research focuses on the relationship between fans' psychological perceptions of team associations and sport fans' team switching behavior by comparing current sport fans with former sport fans who actually switched the team to another team.

2. Literature Review

Switching Behavior in Sport

While literature on brand switching is rich, switching behavior has not been studied in the context of sport. In general, brand switching occurs

when customers' willingness to switch brands is stimulated (Shukla, 2009). It is likely that companies face a persistent threat of brand switching as it causes them some losses such as decreased profit (Le Tan & Trang, 2021). On top of that, brand switching can negatively affect organizations' overall image (Lopez et al., 2006). When brands do not meet customers' expectations, switching behavior can be caused by either individuals' intrinsic and extrinsic motivations (Kim et al., 2012). Accordingly, it is vital for brands to recognize reasons that provoke switching behavior so that a long-term relationship between customers and brands could be maintained (Al-Kwifi et al., 2014).

Only few studies have investigated switching behavior in the sport setting. For example, Parganas et al. (2017) examined the impact of sport team sponsorship on the switching intentions of service customers. The findings of their study suggested that enhancing the level of involvement with the sport and fans' attitudes towards the sponsor would have a positive influence on preventing switching costs and switching intentions. Nonetheless, the main focus of study was to examine the effects of team-related elements on switching behavior pertaining to teams' sponsor product, which did not consider whether fans switched their support team to join other teams. In addition, the unconventional behavior of fans' deviant behavior (cut off reflected success; CORS) may be triggered as a result of factors other than team performance. Some of the theoretical justifications by sport marketing researchers that have been proposed include notions that CORSing fans may have strong connections to the past (e.g., nostalgia to an earlier era,

prior coaching/management, a previous style of play; Cialdini et al., 1995) and possibly a fear of success (to ascend to new heights implies a chance for a greater fall; Campbell et al., 2004). Also, it may be rare, but some fans tend to stand apart from the crowd and experience a need for individuality (Lynn & Harris, 1997). However, these hypothetical explanations about the fans' CORSing behaviors may be more a result of individuals' personalities (e.g., the strong desire for things to remain constant or a fear of success) that cannot be controlled by sport teams, per se. Besides, Bodet and Chanavat (2010) examined the international sport fans' behavior and identified that many international fans supported a sport club due to a particular star player. Interestingly, some fans declared that they would switch their support if the player moved to another club. To that end, it can be argued that "being a fan of a particular team could be more important than a particular player itself" (Kamath et al., 2020, p. 433). In other words, the fan who has a higher attachment to the team may not switch his/her favorite team.

In past research pertaining to switching behavior, where self-reported intentions of switching teams were operationalized (Lee et al., 2020; Parganas et al., 2017), significant implications have been suggested. However, the limitation of using a self-administered questionnaire regarding respondents' intentions of switching exists due to the issue of social desirability bias, especially related to switching behavior.

Theoretical Framework of Team Associations

The notion of brand associations is grounded in the associative network memory model (Keller, 1993). According to this model, human semantic

memory consists of various networks, and each network that stores information in memory is associated with several other nodes, which are linked to each other (Aaker, 1996; Keller, 1993). In the context of brands, brands are stored within humans' memories and are associated with a wide range of other nodes. The associative network memory model is purported to explain the nature of human intelligence and the process of how people think of a brand. Moreover, the model suggests a fundamental basis to build stronger brand equity in a wide range of contexts. Brand associations, which are one of the significant factors that constitute brand equity, are vital factors in forming a favorable brand image that brand managers can utilize to differentiate themselves from competitors (Keller, 1993). Keller's (1993) customer-based brand equity model is one of the widely used conceptual frameworks to measure brand association/image in various contexts, including sport.

In the context of sport, scholars have conducted extensive research intended to identify sport fans' associations with their favorite teams. Team associations are any thoughts that come to a consumer's mind when they think about a specific team (Gladden & Funk, 2002; Ross et al., 2006). Sport marketing scholars have suggested that team associations play an important role in sport consumer behavior (Ross et al., 2006). Notably, Gladden and Funk (2002) initially developed the team association model (TAM), and Ross et al. (2006) developed the team brand association scales (TBAS). Following their research frameworks, a number of studies explored the link between team associations and attitudinal/consumptive behaviors (e.g., Bauer et al., 2008; Kunkel et al., 2017).

Additionally, team associations were developed to capture all aspects of fan associations with sport teams, such as on-field (e.g., star player, team performance) and off-field factors (e.g., team's logo, team history, stadium community, and social interaction; Bauer et al., 2008). Research on team associations has highlighted that certain team association types, such as team success or a star player/coach (on-field factors), are important in positively affecting fans' behaviors toward teams (e.g., Biscaia et al., 2016; Funk, 2002; Ross et al., 2008).

Sport Fans' Team Associations and Switching Behavior

While several studies investigated team associations (Biscaia et al., 2013), research in this area has primarily focused on the positive relationship between team associations and fans' consumption intentions (e.g., game attendance, television consumption, merchandise consumption; Kunkel et al., 2017). Considering that fan behavior may be neither consistent nor universal across all fans or between sport teams (Boyle & Magnusson, 2007), it is also possible that some aspects of team associations are related to sport fans' switching behavior in a different way as opposed to current sport fans. Thus, to better understand sport fans' switching behavior, it is important to examine how team switchers thoughts about their supported teams that they no longer root for (i.e., team associations) differ from the thoughts of fans whom remained supportive of their teams.

Fans Identification (Role-based Identification)

In the sport management literature, two different types of identification by sport scholars have been identified: team identification and fan identi-

fication (Biscaia et al., 2018). Team identification is defined as a sport fan's psychological belongingness with a sport team based on social identity theory (Heere & James, 2007), whereas fan identification is grounded in identity theory (Stryker, 1968), which defines a sport fan's psychological importance of the role of being a fan. As team identification implicitly indicates that fans would support poor performing teams (Doyle et al., 2017), examining fans' propensity to cut ties with a succssful team would not fit with the category-based team identification concept. Thus, the present study uses a fan identification concept to examine how fan identification plays a role in fans' switching behavior. Importantly, sport marketing researchers have long examined relationships between fans' psychological factors, such as team association types and fans' levels of identification, to better understand how sport fans are influenced by teams' diverse elements (Funk & James, 2006).

In general, it is assumed that highly identified fans are less likely to reduce their connections with teams despite the team's poor performance (Branscombe & Wann, 1992). Rather, they often focus on other aspects of the sport team (Roccas & Brewer, 2002) and are "understood to be motivated to take some action in the face of a loss to restore their positive self-concept" (Agha & Tyler, 2017, p. 298). Considering the relationship between fan identification and fan's deviant behavior such as switching behaviors, it is logical that team performance-related factors may not be the reason to trigger to switch. To that end, this study also argued that fans with a low fan identification are more likely to disconnect from a team.

Research Questions

Taken all together, understanding fans' switching behaviors would provide significant marketing insights with the potential to protect revenue loss resulting from team switchers. As such, it is pivotal that sport teams ascertain the reasons behind the fans' switching decisions in order to build a sustainable and successful relationship between fans and teams. However, due to the difficulty of identifying such behaviors, there is a lack of empirical research aimed at understanding switching behaviors. Given the dearth of empirical research about team associations with team switching, there is a need for further research that explores relationships between sport fans' team association and switching behavior. Specifically, the current study attempts to answer three primary research questions:

RQ 1: How do team associations differ between current sport fans and fans who switched the team to other teams?

RQ 2: How are team association types related to fans' switching behavior?

RQ 3: Are lowly identified sport fans more likely to engage in switching behavior than highly identified fans?

3. Methodology

Sampling and Sample

The trend of losing fans may have been a major issue for the Tampa Bay Rays. Major League Baseball attendance report from ESPN.com clearly showed that home attendance of the Rays has continuously been declined since 2009 (Suneson, 2019), indicating that they have faced a substantial challenge of attracting fans. Therefore, data were collected in the Tampa, Florida area us-

ing a purposive sampling technique. The target population for the present study was those who have ever been Tampa Bay Rays baseball fans. Data collection was assisted by Survey Sampling International. The questionnaires were electronically sent out to internet panels of local residents in Tampa. Two screening questions in the survey were used to qualify participants. Through the screening questions, participants were categorized into two groups: team switchers (TS) and non-team switchers (NTS). More specifically, a fan who declared that their favorite MLB team was previously the Rays, but they no longer supported the Rays and root for other teams was considered a TS. In contrast, a fan who declared that their fa-vorite MLB team was and still is the Rays was considered a NTS. All participants were asked to rate items related to the Rays. Initially, 695 questionnaires were collected. After screening the data and deleting incomplete surveys and reckless responses (answer the same number to all questions), 444 (63.9%) questionnaires were deemed usable. The final sample consisted of 232 female (53.6%) and 385 White (86.8%) fans. The majority of participants were between 35 and 54 years old (n = 161; 36.3%). Among the participants, 235 participants were NTS whereas 209 participants were TS. Table 1 presents the summary of the participant's demographics.

Table 1

Demographic Information of the Sample: Team Switchers (TS) and Non-Team Switchers (NTS)

Variables	Categories	Overall (444)		TS (209)		NTS (235)	
		n	%	n	%	n	%
Gender	Male	212	47.7	104	50.2	108	46.0
	Female	232	53.6	105	49.8	127	54.0
Age	18-24	29	6.6	9	4.3	20	8.5
	25-34	75	16.9	29	13.9	46	19.6
	35-54	161	36.3	76	36.4	85	36.2
	55-64	93	20.9	51	24.4	42	17.9
	65-74	86	19.4	44	21.1	42	17.9
Marital	Single	146	32.9	64	30.7	82	34.9
	Married	253	57.0	119	56.9	134	57.0
	Other	45	10.1	26	12.4	19	8.1
Race	Caucasian	385	86.8	179	85.7	206	87.7
	African-American	23	4.5	10	4.3	10	4.3
	Hispanic	32	6.6	13	6.2	16	6.8
	Asian	4	0.9	4	1.9	0	0
	Other	6	1.4	3	1.4	3	1.3

Instruments

Measurement items were adapted from established scales. The team association scale was adapted from Ross et al.'s (2006) TBAS. Because some team association types from the original TBAS model have low average variance extracted (AVE), additional items were added from another team association scale (i.e., Gladden & Funk, 2002). Additionally, star player and level of competition were added into the model since these two measures have been suggested as important measures in assessing team association scales (Kunkel et al., 2014). Three items of fan identification were adapted from Trail and James's (2001) study. All items were anchored on 11-point Likert scales ranging from 1 (strongly disagree) to 11 (strongly agree). Empirical research provided evidence that there were no significant differences among the use of different scales in terms of reliabilities, correlations, and factor structures (i.e., 4-, 5-, 6-, and 11-point Likert scale; Leung, 2011).

Data Analysis

Descriptive analysis, a confirmatory factor analysis (CFA), a binary logistic regression, and a latent mean analysis were conducted using SPSS version 22 and Mplus version 8. More specifically, CFA was performed to assess the proposed structure in each group (i.e., NTS and TS). Next, latent mean comparisons were examined to determine whether there were significant differences between NTS and TS in team association types. Prior to conducting the latent mean comparisons, the invariance of the measurement model was tested (Loehlin, 1998).

Finally, a binary logistic regression analysis

was conducted to investigate the relationship between types of team associations and the probability of accurately predicting fans' switching behaviors. This statistical analysis was appropriate since the study's dependent variable was a binary variable. Binary logistic analysis can allow researchers to control for measuring covariates that a chi-squared test cannot (Menard, 2002).

4. Results

Skewness and kurtosis were examined to assess normality for both model (NTS and TS). The values of skewness ranged from -1.22 to -.55 (NTS) and from -.78 to .16 (TS), and the values of kurtosis ranged from -.70 to 1.37 (NTS) and from -1.02 to -.10 (TS). These results indicated that the normality of data was not violated since the absolute values of skewness and kurtosis were below 2 (Finney & DiStefano, 2006).

Construct Validity

For the assessment of internal consistency, the composite reliability values for both models were above the suggested criteria of .70, indicating the establishment of internal consistency. Following Kline's (2010) suggestion, this study examined factor correlations to determine the discriminant validity in each group. Values of all team association types and fan identification were lower than .85, except for team success and team play for both groups (.87 for NTS and .86 for TS). Given similar results of high correlations between team success and team play from previous research (see Biscaia et al., 2013), this study also grouped two factors into one factor (named team performance; TP). Afterwards, all values of correlation in each group

were lower than .85 (see Table 2), and thus provided evidence of discriminant validity.

Additionally, all factor loadings for NTS and TS models ranged from .502 to .946 and from .551 to .935, respectively (see Table 3). AVE values were greater than the cut-off point of .50, except for commitment factor (AVE = .45). Type of team association commitment had relatively low AVE values than the recommended criteria. Given that commitment is considered more of a personal motive than a perceived association and is highly conceptually similar to fan identification factor, we decided to remove this team association type. After the modifications, convergent validity was established based on the results of composite reli-

ability, factor loadings, and AVE values. Even though rivalry's AVE value (.49) was marginally below than the threshold, we decided to retain this factor due to the conceptually important team association type (Ross et al., 2008).

The results of the overall indicated that the model adequately fit to the data ($\chi 2/df$ = 3445.451/1236 = 2.78; CFI = .902; RMSEA = .063; SRMR = .050). Then, separate CFA for NTS and TS was conducted, and the results revealed acceptable fit to the data (NTS: $\chi 2/df$ = 2179.379/1080 = 2.01; CFI = .901; RMSEA = .066; SRMR = .059 and TS: $\chi 2/df$ = 2035.241/1089 = 1.86; CFI = .895; RMSEA = .064; SRMR = .059).

Table 2

Correlation Matrix of TS and NTS

NTS	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. BM	8.84	2.22												
2. RI	6.74	2.76	.50											
3. SI	7.69	2.53	.53	.56										
4. CON	6.84	3.03	.38	.47	.76									
5. TH	7.72	2.41	.54	.61	.63	.50								
6. OA	8.48	2.29	.55	.44	.61	.46	.70							
7. TP	8.25	2.21	.55	.46	.63	.48	.73	.78						
8. NP	7.52	2.54	.47	.51	.53	.48	.69	.73	.82					
9. SC	8.26	2.19	.47	.33	.51	.47	.52	.62	.65	.60				
10. SP	8.55	2.07	.48	.42	.54	.40	.68	.67	.78	.66	.53			
11. LC	8.49	2.34	.45	.34	.55	.39	.57	.60	.73	.61	.47	.72		
12. FID	8.57	2.40	.42	.42	.50	.38	.56	.46	.55	.49	.32	.59	.59	
TS	M	SD	1	2	3	4	5	6	7	8	9	10	11	12

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1. BM	7.10	2.87											
2. RI	5.21	2.59	.40										
3. SI	6.10	2.51	.46	.56									
4. CON	5.25	2.94	.39	.46	.80								
5. TH	5.31	2.51	.44	.46	.68	.56							
6. OA	6.51	2.78	.46	.37	.58	.48	.65						
7. TP	6.10	2.36	.51	.41	.63	.50	.77	.65					
8. NP	5.37	2.56	.48	.44	.57	.51	.66	.77	.83				
9. SC	6.41	2.53	.51	.36	.52	.48	.47	.66	.64	.55			
10. SP	7.19	2.48	.45	.36	.46	.41	.58	.47	.65	.57	.53		
11. LC	6.78	2.59	.42	.32	.49	.44	.48	.58	.59	.50	.52	.68	
12. FID	8.06	2.51	.31	.32	.35	.31	.23	.26	.31	.32	.33	.41	.40

Note: BM=Brand Mark; RI=Rivalry; SI=Social Interaction; CON=Concessions; TH=Team History; OA=Organizational Attributes; TP=Team Performance; NP=Non-player Personnel; SC=Stadium Community; SP=Star Player; LC=Level of Competition; FID=Fan Identification.

All Pearson correlation values were significant at the .05 level.

Table 3

Factor Loadings, Composite Reliability (CR), and Average Variance Extracted (AVE)

Factors and Items	Factor A/B	CR A/B	AVE A/B
Brand Mark		.81	.58
1. The symbol of the team	.667/.712	.82	.60
2. The team's logo	.795/.741		
3. The team colors	.831/.880		
Concessions		.97	.74
1. Eating a specific food at the stadium/arena	.753/.841	.92	.75
2. Eating at the stadium/arena	.890/.838		
3. Concessions at the stadium/arena	.878/.935		
4. Consuming beverages at the stadium/arena	.916/.847		
Social Interaction		.77	.53
1. Going to games with my friends	.742/.787	.76	.51
2. Enjoy being with others at the game	.779/.743		

3. Feel connected with others	.674/.623		
Team History		.87	.58
1. A specific era in the team's history	.656/.673	.88	.61
2. Game winning plays in the team's history	.875/.848		
3. Championships the team has won	.743/.761		
4. The most recent championship the team won	.685/.793		
5. The success of the team in the past	.842/.835		
Organizational Attributes		.87	.70
1. An organization committed to its fans	.801/.859	.89	.73
2. A team loyal to its fans	.877/.911		
3. The team giving back to the community	.834/.805		
Non-player Personnel		.90	.71
1. The head coach	.816/.837	.90	.69
2. A current coach on the team	.888/.846		
3. Excellent coaches	.895/.882		
4. Owners of the team	.768/.771		
Stadium Community		.90	.57
1. The area surrounding the stadium/arena	.564/.805	.92	.62
2. The community surrounding the stadium/arena	.680.725		
3. The location of the stadium/arena	.756/.795		
4. The city that the team is from	.502/.553		
5. What stadium/arena the team plays its home games in	.916/.903		
6. The team's home stadium/arena	.935/.899		
7. Unique characteristics of the team's stadium/arena	.842/.821		
Team Performance		.96	.75
1. A winning team	.860/.883	.95	.71
2. The performance of the team	.910/.880		
3. Quality players	.882/.835		
4. The quality of the team	.932/.878		
5. A great team	.891/.880		
6. How the team scores its points	.820/.851		
7. Specific team characteristics (e.g., lucky, exciting)	.863/.828		
8. Enjoy the playing style of the team	.907/.870		
Rivalry		.77	.54

1. The team's biggest opponent	.887/.808	.73	.49
2. Beating the team's main rival	.685/.712		
3. The team's conference	.604/.551		
Star Player		.93	.83
1. My favorite team have any star players that I like to watch	.890/.865	.90	.75
2. I like to watch my favorite team's start players	.917/.808		
3. My favorite team has start players that I like to watch	.929/.929		
Level of Competition		.82	.60
1. I enjoy the highest level of play in major league sports	.840/.789	.84	.64
2. Professional sports are more exciting than lower level of sports	.605/.727		
3. I like the competitiveness of major league level sports	.870/.893		
Fan Identification		.90	.75
1. I consider myself to be a "real" fan of "Rays"	.946/870	.88	.71
2. I would experience a loss if I had to stop being a fan of "Rays"	.765/.783		
3. Being a fan of "Rays" is very important to me	.884/.878		

Note: A = Non-Team Switchers; B = Team Switchers

NTS and TS Comparison

We performed a measurement invariance test to confirm that two different groups interpreted the proposed constructs and items in an equivalent way. Following Kline's (2015) suggestion, the measurement invariance test was conducted by comparing unconstrained and constrained models. To do so, an unconstrained model was developed in which all factor loadings are constrained, but all parameters are freely estimated across the two groups. Then, a constrained model was developed by constraining all factor loadings equally across the two groups. To test the measurement invariance test, a chi-square ($\chi2$) statistic was used to compare each model.

The fit of both the unconstrained model ($\chi2$/df = 5106.629/2303 = 2.23; CFI = .864; RMSEA = .075; SRMR = .078) and constrained model ($\chi2$/df = 5141.895/2341 = 2.18; CFI = .867; RMSEA = .073; SRMR = .061) showed an acceptable model fit, and $\chi2$ statistic did not show significant differences between two models ($\Delta\chi2$[38] = 35.26, p >.05), indicating that measurement invariance was established. Although CFI values were marginally lower than the suggested cutoff point (.90), $\chi2$ was significant and its ratio to the degrees of freedom was below the 3.0 criterion (Kline, 2015), which has been regarded as a restrictive fit index due to its sensitivity to sample size (Hair et al., 2009). In addition, it is important to note that Loehlin (1998) argued that a CFI close to 0.90 is also acceptable. Thus, we proceeded to the next analysis.

Latent Mean Analysis

Since the measurement invariance was confirmed, a latent mean comparison was conducted to explore differences in the latent mean of meas-

ured factors including 12 team association types and fan identification across two groups. The latent mean analysis had a strong statistical advantage and power to discover group differences controlling measurement errors (Hong et al., 2003). NTS was set as a reference group and TS as a comparison group. As a result, significant differences in all team association types were detected (see Table 4). However, there was no significant difference between NTS and TS with respect to fan identification (ΔLM = -0.42, Z = -1.92, p = .054). These findings indicated that when all respondents were fans of the Rays, team switchers were significantly less associated with the team based

on the association types in the model. Additionally, the level of fan identification was not significantly different between NTS and TS, thereby indicating that fan identification may have not been a cause of switching behavior. The negative values mean that the TS group (comparison group) has lower latent mean values than the NTS group (reference group). In addition, Cohen's (1988) d-statistic revealed that brand mark (d = 0.44), social interaction (d = 0.43), team history (d = 0.43), and team performance (d = 0.44) had the highest effect sizes among all team association types and fan identification. These effect sizes represent medium effect sizes.

Table 4

Latent Mean Analysis Results

Variable	Estimates	S.E.	*t*-value	*Cohen's d*
Brand mark	-0.77	0.10	-7.20***	0.44
Rivalry	-0.75	0.12	-6.07***	0.25
Social interaction	-0.76	0.12	-6.31***	0.43
Concessions	-0.54	0.10	-5.20***	0.19
Team history	-0.99	0.11	-8.71***	0.43
Organizational attributes	-0.75	0.10	-7.43***	0.34
Team performance	-0.93	0.10	-8.82***	0.44
Non-player personnel	-0.88	0.11	-8.00***	0.37
Stadium community	-0.76	0.10	-7.62***	0.31
Level of competition	-0.60	0.10	-5.90***	0.30
Star player	-0.68	0.10	-6.67***	0.29
Fan identification	-0.19	0.10	-1.91	0.08

Note: *** = *p* <.001.

Binary Logistic Regression

The binary logistic regression model was tested using the 13 team association types as predictors

and switching behavior as an outcome variable. In addition to the team association types, the effect of fan identification was examined as a dummy vari-

able, which was separated as low and high fan identification. The mean split approach was conducted to divide the sample into two groups (i.e., highly identified fans vs. lowly identified fans). While the median split method has been widely used by sport management scholars (Larkin & Fink, 2019), the present study follows James et al. (2019) who argued that participants who rated below two points on the scale (approximately bottom 28%) may not identify with the team. Therefore, participants in the present study who had lower than three points on the 11-point scale (approximately bottom 27%) of fan identification were eliminated (14 respondents were deleted). Then, participants who rated below 7.5 (median value after deleting bottom 28%) were placed in the low fan identification group (n = 146; M = 5.94; SD = 1.30), whereas participants who rated higher than 7.5 were placed in the high fan identification group (n = 284; M = 9.88; SD = 1.02). A t-test was performed and confirmed that the two groups were significantly different from each other (t[428] = -34.32, p < .001). This dummy variable of fan identification was included in the logistic model along with other team association types.

The logistic regression correctly classified 77.2% of the NTS and 65.3% of the TS. The Wald $\chi 2$ statistic was significant ($\chi 2$[12] = 122.84, p < .001), indicating that this logistic regression model was statistically significant and contributed to the model. Pseudo R2 (Nagelkerke's R2) showed .332, indicating that the model was satisfactory, and the overall prediction success of the model was 71.6%.

Results demonstrated that team history (odds ratio = .759, p < .001) and stadium community (odds ratio = .868, p < .001) had negative and significant relationships with fans' switching behaviors. Additionally, results of fan identification that had a negative and significant relationship with fans' switching behaviors (odds ratio = .581, p < .001), indicating that fans with a low fan identification were more likely to switch than highly identified fans. Overall, the results indicated that fans with lower levels of team history, stadium community, and low identification were more likely to be associated with an increased likelihood of switching.

5. Discussion

Previous sport marketing scholars primarily researched relationships between fans' team associations with sport teams and positive outcomes, including game attendance and intentions to consume products and services (Biscaia et al., 2016; Yoshida et al., 2014). Given the dearth of prior research that analyzed the relationship between fans perceptions and behaviors by examining fans who actually left the team, this study contributes to the sport management literature and extends our understanding and knowledge of fans' switching behaviors in both theoretical and practical perspectives.

To begin, this study made significant theoretical contributions to the literature in terms of the relationship between various team association types and switching behavior. The analysis of the latent mean differences indicated that team switchers tend to have low team associations counterpart, with significant differences being found across all team association types (e.g., team's logo, stadium, and team history). Consistent with previous re-

search, individuals who favor brands less dislike them more than those who more favor brands (Sharp, 2016). Likewise, fans who are less related to the organization favor the organization less (Biscaia et al., 2016; Garbarino & Johnson, 1999). To that end, the findings of the current study support the notion that fans with a weaker connection with a team, such as team switchers, may have lower levels of associations with a team.

The findings of this study concerning the stadium community and team history have significant relationships with fans' switching behaviors. It is interesting that while all team association types were significantly different between non-team switchers and team switchers, only two team association types were linked to fans' switching behaviors. This indicates that team switchers were triggered to leave the team due to associations of team history and stadium community although other team association types were less important for them compared to non-team switchers. These findings are consistent with Bauer et al.'s (2008) study. They identified that off-field factors or non-product-related attributes of team associations (e.g., team's logo, stadium atmosphere, social interaction, and team history) were significant predictors of fans' attitudinal perceptions. More specifically, it is argued that fans' perceptions of the non-product-related attributes, such as stadium atmosphere, could be a critical factor to understanding why they attend the stadium (e.g., Wakefield & Sloan, 1995). In line with this reasoning, fans who had relatively less positive perceptions about the stadium atmosphere (e.g., uniqueness, location, and surrounding) are more likely to be triggered to engage in switching behavior. Therefore, this study

supports the importance of stadium atmosphere and encourages sport organizations to ensure fans' perceptions of the stadium atmosphere remain high to avoid losing fans.

In addition, team history has been found to be an important facet in influencing sport fans' overall memories and perceptions in the context of team associations (Kunkel et al., 2014), but it is not the case in this study. Logically, this may be true that teams with less decorated team histories have more negative fan perceptions. In the brand management literature, a brand's history is a significant source of brand value and positioning for consumers (Peñaloza, 2000). Thus, it is important to note that promoting and cultivating teams' traditions, such as historical games, coaches, and players, can be important for retaining fans before they engage in switching behaviors. It is also identified that fans with a low identification were more likely to be switching than highly identified fans. This finding further supports the notion that fans' psychological contracts with teams are important for sport organizations to build long-lasting relationships. In addition, the finding indicates that sport organizations should ascertain fans' needs and relay those needs to higher levels of management, which can help achieve the organizations' goals. However, failure to provide adequate support to the fans can harm revenue and increase switching behavior.

It is important to note that Rays have long been considering relocation due to their loss of fan base and other reasons. In this regard, as team history and stadium community were identified as significant predictors of switching behavior, these findings could provide critical insights for teams who

consider new locations or expansion-team/franchise (e.g., Major League Baseball's Oakland A's and Montreal Expos, National Football League's the Minnesota Vikings, the National Hockey League's Vegas Golden Knights, and the Major League Soccer's Los Angeles Football Club).

Practical Implications

It is important for sport managers to understand diverse mechanisms underpinning consumer tendencies, since they can strategically tailor them toward different types of fans in terms of marketing promotions (Kim et al., 2013). Because team switchers display weak team associations, sport managers should identify fans who have relatively lower team associations and segment them to be exploited by different marketing plans. Sport marketers are needed to measure their overall team brand associations and identify what elements of team associations need improving. Further, marketers need to capitalize on varying types of team associations when segmenting the market. More specifically, when fans with lower team associations are identified, it means that fans' loyalty toward teams may start declining. Accordingly, sport managers are encouraged to make them engaged in the team through various marketing plans to increase the positive image of the team. Sport teams should consider managing and diversifying their various teams' associations to provide symbolical meaning to their fans with low overall team associations.

In addition, sport teams and managers are advised that teams more prone to switching behavior should focus on increasing fans' perceptions toward team history instead of highlighting the rivalry game or game day promotion (Lee et al., 2020). To highlight and enhance the perception of team history towards potential team switchers, sport managers can manipulate brand recall and memory over time by implementing strategies and actions that focus on a team's culture, history, and critical on- and off-field moments (Daniels et al., 2019). These strategies are beneficial and manageable for teams. Also, it is critical that managers must set realistic and appropriate plans that fans can relate. It is suggested that knowing the types of features and benefits that arise in sport teams can help with strategic awareness and allow for a focus on cultivating distinctive brand traits (Daniels et al., 2019). Likewise, nostalgia proneness is important to exert a positive influence on consumers' perceptions (Holbrook, 1993). Given its importance, marketing campaigns related to fans' favorite specific historical era need to be exploited. In terms of stadium community, it is recommended that executives consider the accessibility of stadiums and how convenient locations are for fans. In addition, the symbolic meanings of stadiums are important for fans. Thus, sport managers should consider developing iconic sites in and outside of stadiums to increase the uniqueness of the sites (e.g., the Yankee Stadium's copper frieze; Cho et al., 2019).

Since fans with lower fan identification tend to be more likely to exhibit switching behavior, sport teams should establish a reciprocal relationship with fans to ensure they feel valued and supported by the team and to assist them in building identification with the team (Couvelaere & Richelieu, 2005). For instance, sport organizations should create a perception among the fans that the organization cares about them, cares about the society,

takes pride in their support, and is willing to listen to them when problems occur with the team. This perception that the organization supports their efforts to support the team will likely lead to maintain fans' loyalty and indirectly to lower the rate of switching behavior. Clearly, creating an environment where the loyalty of fans is maintained while reducing switching behavior, especially among highly identified fans, are goals that every organization desires to achieve regarding their potential revenue source. The significance of producing, sustaining, and enhancing positive team associations is essential for sport services given the strong experiential nature of the sport product (Gladden & Funk, 2002). Ultimately, investigating and understanding sport fans' associations is imperative for sport managers to effectively manage sport teams.

Limitations

While the present study found some interesting relationships and drew some novel conclusions by building on the sport management literature with an empirical study of fans' switching behavior, there remain limitations. We encourage readers to use caution in generalizing the results, as this study was conducted on Tampa-based Rays fans. While we have no reason to believe results may differ among fans of any other baseball teams, there may be cultural or other reasons why fans of the Rays or from Tampa may be more or less likely to switch based on various characteristics. We also understand that, based on previous studies, there may be differences in sport fan behavior based on the sport league the fan's team is in. Future research could examine more locations, fanbases, and leagues to see if there are differences not iden-

tified by the present research on the Tampa Bay Rays' local fanbase in Tampa. Nevertheless, regardless of the limitations of the present study, it remains a comprehensive empirical analysis of the understudied team switching phenomenon and can serve as a crucial study for future researchers to build upon.

Future Research Opportunities

Opportunities for future research examining switching behavior can come from two primary areas, based on the groundwork provided in the present study: (a) improving upon the limitations in the present study or (b) building upon the current knowledge produced by the present study. To address the limitations, future researchers could attempt to identify switching behaviors in social media. For example, through social media analyses or following an incident that may cause fans to leave (e.g., scandals), this strategy could assist researchers in understanding switching behavior in social media which may strongly connect to team switching behavior. Additionally, qualitative research could seek to understand the factors related to switching, and whether they are cultural or could be based on location, fanbases, leagues, or team associations themselves. Similarly, future research could also examine more locations, fanbases, and leagues to see if there are differences not identified by the present research on the Tampa Bay Rays' local fanbase in Tampa.

Building on the knowledge produced by the present study on switching, future research could empirically investigate several other issues related to team switching. For example, research could assess the amount of revenue teams lose as a result of team switchers and if more revenue is lost based

on certain reasons for switching. More analyses on the reasons for team switching could also be examined. For example, head coach or star player turnover, as well as scandals or other forms of deviant behavior could affect switching behavior. More specifically, different types of deviance in sport organizations observed by the public could result in differing propensities to engage in switching (e.g., on-field penalties, player and coach fines and suspensions, off-field legal incidents; Foreman et al., 2019).

REFERENCES

Aaker, D. A. (1996). Measuring brand equity across products and markets. *California Management Review, 38*(3), 102-120.

Agha, N., & Tyler, B. D. (2017). An investigation of highly identified fans who bet against their favorite teams. *Sport Management Review*, *20*(3), 296-308.

Al-Kwifi, S., Ahmed, Z. U., & Yammout, D. (2014). Brand switching of high-technology capital products: how product features dictate the switching decision. *Journal of Product & Brand Management*, *23*(4/5), 322-332.

Bauer, H. H., Stokburger-Sauer, N. E., & Exler, S. (2008). Brand image and fan loyalty in professional team sport: A refined model and empirical assessment. *Journal of Sport Management, 22*(2), 205-226.

Biscaia, R., Correia, A., Ross, S., Rosado, A. F., & Marôco, J. (2013). Spectator-based brand equity in professional soccer. *Sport Marketing Quarterly*, *22*(1), 20-32.

Biscaia, R., Hedlund, D. P., Dickson, G., & Naylor, M. (2018). Conceptualizing and measuring fan identity using stakeholder theory. *European Sport Management Quarterly*, *18*(4), 459-481.

Biscaia, R., Ross, S., Yoshida, M., Correia, A., Rosado, A., & Marôco, J. (2016). Investigating the role of fan club membership on perceptions of team brand equity in football. *Sport Management Review,* *19*(2), 157-170.

Bodet, G., & Chanavat, N. (2010). Building global football brand equity: Lessons from the Chinese market. *Asia Pacific Journal of Marketing and Logistics*, *21*(1), 55-66.

Boyle, B. A., & Magnusson, P. (2007). Social identity and brand equity formation: A comparative study of collegiate sports fans. *Journal of Sport Management, 21*(4), 497-520.

Branscombe, N. R., & Wann, D. L. (1992). Role of identification with a group, arousal, categorization processes, and self-esteem in sports spectator aggression. *Human Relations*, *45*(10), 1013-1033.

Campbell R. M., Jr., Aiken, D., & Kent, A. (2004). Beyond BIRGing and CORFing: Continuing the exploration of fan behavior. *Sport Marketing Quarterly, 13*(3), 151-157.

Cho, H., Lee, H. W., & Pyun, D. Y. (2019). The influence of stadium environment on attendance intentions in spectator sport. *International Journal of Sports Marketing and Sponsorship, 20*(2), 276-290.

Cialdini, R. B., Borden, R. J., Thorne, A., Walker, M. R., Freeman, S., & Sloan, L. R. (1976). Basking in reflected glory: Three (football) field studies. *Journal of Personality and Social Psychology, 34*(3), 366-375.

Cialdini, R. B., Trost, M. R., & Newsom, J. T. (1995). Preference for consistency: The development of a valid measure and the discovery of surprising behavioral implications. *Journal of Personality and Social Psychology, 69*(2), 318-328.

Cohen, J. (1988). *Statistical power analysis for the behavioural sciences* (2nd ed). Lawrence Erlbaum.

Couvelaere, V., & Richelieu, A. (2005). Brand strategy in professional sports: The case of French soccer teams. *European Sport Management Quartely, 5*(1), 23-46.

Daniels, J., Kunkel, T., & Karg, A. (2019). New brands: Contextual differences and development of brand associations over time. *Journal of Sport Management*, *33*(2), 133-147.

Doyle, J. P., Kunkel, T., Kelly, S. J., Filo, K., & Cuskelly, G. (2021). Seeing the same things differently: exploring the unique brand associations linked to women's professional sport teams. *Journal of Strategic Marketing*, 1-15.

Doyle, J. P., Lock, D., Funk, D. C., Filo, K., & McDonald, H. (2017). 'I was there from the start': The identity-maintenance strategies used by fans to combat the threat of losing. *Sport Management Review*, *20*(2), 184-197.

Finney, S. J., & DiStefano, C. (2006). Non-normal and categorical data in structural equation modeling. *Structural Equation Modeling: A Second Course, 10*(6), 269-314.

Foreman, J. J., Soebbing, B. P., & Seifried, C. S. (2019). The impact of deviance on head coach dismissals and implications of a personal conduct policy. *Sport Management Review, 22*(4), 491-501.

Funk, D. C. (2002). Consumer-based marketing: The use of micro-segmentation strategies for understanding sport consumption. *International Journal of Sports Marketing & Sponsorship*, *4*(3), 231-257.

Funk, D. C., & James, J. D. (2006). Consumer loyalty: The meaning of attachment in the development of sport team allegiance. *Journal of Sport Management, 20*(2), 189-217.

Garbarino, E., & Johnson, M. S. (1999). The different roles of satisfaction, trust, and commitment in customer relationships. *Journal of Marketing, 63*(2), 70-87.

Gladden, J. M., & Funk, D. C. (2002). Developing an understanding of brand associations in team sport: Empirical evidence from consumers of professional sport. *Journal of Sport Management, 16*(1), 54-81.

Hair, J. F., Jr., Black, W.C., Babin, B. J., & Anderson, R. E. (2009). *Multivariate data analysis*. Prentice Hall.

Heere, B., & James, J.D. (2007). Sports teams and their communities: Examining the influence of external group identities on team identity. *Journal of Sport Management*, 21(3), 319–337.

Holbrook, M. B. (1993). Nostalgia and consumption preferences: Some emerging patterns of consumer tastes. *Journal of Consumer Research*, *20*(2), 245-256.

Hong, S., Malik, M. L., & Lee, M. K. (2003). Testing configural, metric, scalar, and latent mean invariance across genders in sociotropy and autonomy using a non-Western sample. *Educational and Psychological Measurement, 63*(4), 636-654.

James, J. D., Delia, E. B., & Wann, D. (2019). No" is not "low": Improving the assessment of sport team identification. *Sport Marketing Quarterly, 28*(1), 34-45.

Kamath, G. B., Ganguli, S., & George, S. (2020). Attachment points, team identification and sponsorship outcomes: evidence from the Indian Premier League. *International Journal of Sports Marketing and Sponsorship*, *22*(3), 429-452.

Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing, 57*(1), 1-22.

Kim, J. W., James, J. D., & Kim, Y. K. (2013). A model of the relationship among sport consumer motives, spectator commitment, and behavioral intentions. *Sport Management Review, 16*(2), 173-185.

Kim, Y. G., Kim, S., & Yoo, J. L. (2012). Travel agency employees' career commitment and turnover intention during the recent global economic crisis. *The Service Industries Journal*, *32*(8), 1247-1264.

Kline, R. B. (2010). Promise and pitfalls of structural equation modeling in gifted research. In B. Thompson & R. F. Subotnik (Eds.), *Methodologies for conducting research on giftedness* (p. 147–169). American Psychological Association.

Kline, R. B. (2015). *Principles and practice of structural equation modeling*. Guilford Press.

Kunkel, T., Funk, D. C., & Lock, D. (2017). The effect of league brand on the relationship between the team brand and behavioral intentions: A formative approach examining brand associations and brand relationships. *Journal of Sport Management, 31*(4), 317-332.

Kunkel, T., Funk, D., & King, C. (2014). Developing a conceptual understanding of consumer-based league brand associations. *Journal of Sport Management*, *28*(1), 49-67.

Larkin, B., & Fink, J. S. (2019). Toward a better understanding of fan aggression and dysfunction: The moderating role of collective narcissism. *Journal of Sport Management, 33*(2), 69-78.

Le Tan, T., & Trang, N. D. (2021). Factors affecting brand switching: The case of cellular service provider in Danang, Vietnam. *IUP Journal of Brand Management*, *18*(2), 24-44.

Lee, D., Cottingham, M., Powers, S., & Maeng, I. (2020). Perceived fan associations with MLB teams: Bask inspite of reflected failure versus cut off reflected success. *International Journal of Sport Management and Marketing, 20*(1/2), 9-28.

Leung, S. O. (2011). A comparison of psychometric properties and normality in 4-, 5-, 6-, and 11-point Likert scales. *Journal of Social Service Research*, *37*(4), 412-421.

Loehlin, J. C. (1998). *Latent variable models: An introduction to factor, path, and structural analysis*. Erlbaum.

Lopez, J. P. M., Redondo, Y. P., & Olivan, F. J. S. (2006). The impact of customer relationship characteristics on customer switching behavior: Differences between switchers and stayers. *Managing Service Quality: An International Journal*, *16*(6), 556-574.

Lynn, M., & Harris, J. (1997). Individual differences in the pursuit of self-uniqueness through consumption. *Journal of Applied Social Psychology, 27*(21), 1861-1883.

Menard, S. (2002). *Applied logistic regression analysis*. SAGE Publications.

Parganas, P., Papadimitriou, D., Anagnostopoulos, C., & Theodoropoulos, A. (2017). Linking sport team sponsorship to perceived switching cost and switching intentions. *European Sport Management Quarterly*, *17*(4), 457-484.

Park, S. H., Mahony, D. F., & Greenwell, T. C. (2010). The measurement of sport fan exploratory curiosity. *Journal of Sport Management, 24*(4), 434-455.

Park, S. H., Mahony, D., & Kim, Y. K. (2011). The role of sport fan curiosity: A new conceptual approach to the understanding of sport fan behavior. *Journal of Sport Management, 25*(1), 46-56.

Peñaloza, L. (2000). The commodification of the American West: Marketers' production of cultural meanings at the trade show. *Journal of Marketing*, *64*(4), 82-109.

Roccas, S., & Brewer, M. B. (2002). Social identity complexity. *Personality and Social Psychology Review*, *6*(2), 88-106.

Ross, S. D., James, J. D., & Vargas, P. (2006). Development of a scale to measure team brand associations in professional sport. *Journal of Sport Management, 20*(2), 260-279.

Ross, S. D., Russell, K. C., & Bang, H. (2008). An empirical assessment of spectator-based brand equity. *Journal of Sport Management*, *22*(3), 322-337.

Stryker, S. (1968). Identity salience and role performance: The relevance of symbolic interaction theory for family research. *Journal of Marriage and Family*, *30*, 558–564.

Sharp, B. (2016). *How brands grow: What marketers don't know*. Oxford University

Press.

Shukla, P. (2009). Impact of contextual factors, brand loyalty and brand switching on purchase decisions. *Journal of Consumer Marketing*, *26*(5), 348-357.

Suneson, G. (2019). *These pro sports teams are running out of fans*. Retrieved from https://www.usatoday.com/story/money/2019/07/15/nfl-nba-nhl-mlb-sports-teams-running-out-of-fans/39667999/

Trail, G. T., & James, J. D. (2001). The motivation scale for sport consumption: Assessment of the scale's psychometric properties. *Journal of Sport Behavior*, *24*(1), 108-127.

Wakefield, K. L., & Sloan, H. J. (1995). The effects of team loyalty and selected stadium factors on spectator attendance. *Journal of Sport Management*, *9*(2), 153-172.

Wear, H., & Heere, B. (2020). Brand new: A longitudinal investigation of brand associations as drivers of team identity among fans of a new sport team. *Journal of Sport Management*, *34*(5), 475-487.

Yoshida, M., Gordon, B., Nakazawa, M., & Biscaia, R. (2014). Conceptualization and measurement of fan engagement: Empirical evidence from a professional sport context. *Journal of Sport Management, 28*(4), 399-417.