SPORTS TEAM-IDENTIFIED FAN RELATIONSHIPS:
A MODEL OF TEAM IDENTIFICATION AND ORGANIZATION-PUBLICS
RELATIONSHIPS WITH ATTITUDES AND BEHAVIORAL INTENTIONS

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A DISSERTATION

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
in the College of Communication and Information Sciences
in the Graduate School of
The University of Alabama

TUSCALOOSA, ALABAMA

2016
ABSTRACT

It is important that sport organizations establish good relationships with their identified fans because it helps increase economic revenue and reputation. The purpose of this dissertation is not only to investigate the direct influences among antecedent variables (duration of being a fan and sport media consumption), team identification, organization-public relationships, attitudes towards the team, behavioral intentions including attendance and purchase intentions, and gender as a moderator, but also to suggest a possible model including these variables.

Social identity approaches, team identification, organization-public relationships, attitudes, and behavioral intentions are thoroughly reviewed. A survey method, which was conducted through the Mechanical Turk, was used in this study. A path analysis in structural equation modeling (SEM) and a confirmatory factor analysis (CFA) and correlation were used.

The path analysis proved the significance of the proposed model, which satisfied most indexes of the goodness of fit to the data. The results show that sport media consumption directly affects team identification and organization-public relationships, while duration of being a fan did not significantly influence organization-public relationships, and it had only a small effect on team identification. Moreover, degree of identification and relational perception of a NFL fan directly affect attitudes towards the favorite team. Finally, a person’s attitudes towards the favorite team directly affect not only the purchase intention of team-related products.
but also attendance intention. Among paths in the proposed model, only one path from attitude to attendance intention was significantly different between the male and female groups. Also, the result of CFA shows that all factor loadings were significantly included in the model, and a correlation analysis indicates that some relationships between dimensions of team identification and organization-public relationships have significant and large correlations.

Theoretically, the study shows a visual model of team identification and organization-public relationships including antecedents and outcome variables as well as suggests correlations among dimensions of team identification and organization-public relationships. Practically, the study offers implications to public relations practitioners in sport organizations by explaining the unique relational characteristics between sport organizations and their identified fans in various media environments.
DEDICATION

This dissertation is dedicated to everyone who helped me and guided me through the trials and tribulations of creating this manuscript. In particular, my family and close friends who stood by me throughout the time taken to complete this masterpiece.
LIST OF ABBREVIATIONS AND SYMBOLS

$a$  Cronbach’s index of internal consistency

$\beta$  Standardized coefficient: provides assessment of independent variable on dependent variable

$df$  Degrees of freedom: number of values free to vary after certain restrictions have been placed on the data

$B$  Unstandardized coefficient in multiple regression

$CFA$  Confirmatory Factor Analysis

$EFA$  Exploratory Factor Analysis

$F$  Fisher’s $F$ ratio: A ratio of two variances

$IRB$  Institutional Review Board

$M$  Mean: the sum of a set of measurements divided by the number of measurements in the set

$N$  Sample size

$NFL$  National Football League

$SD$  Standard deviation: a measure of the variability or dispersion of a population, a data set, or a probability distribution

$S. E.$  Standard error

$OPR$  Organization-public relationships
<table>
<thead>
<tr>
<th>Symbol</th>
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<tr>
<td>$p$</td>
<td>Probability associated with the occurrence under the null hypothesis of a value as extreme as or more extreme than the observed value</td>
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<tr>
<td>$r$</td>
<td>Pearson product-moment correlation</td>
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<tr>
<td>$t$</td>
<td>Computed value of $t$ test</td>
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<tr>
<td>$&lt;$</td>
<td>Less than</td>
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<tr>
<td>$=$</td>
<td>Equal to</td>
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<tr>
<td>RMSEA</td>
<td>Root mean square error of approximation</td>
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<tr>
<td>CFI</td>
<td>Comparative fit index</td>
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<td>NFI</td>
<td>Normed fit index</td>
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<td>CR</td>
<td>Composite Reliability</td>
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<td>IFI</td>
<td>Incremental fit index</td>
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<td>TLI</td>
<td>Tucker-Lewis index</td>
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<td>GFI</td>
<td>Goodness of fit index</td>
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ACKNOWLEDGMENTS

I am very glad that I have finished this dissertation and can finally express my thankfulness to many people who have helped in my entire doctoral process.

First of all, I would like to thank my dissertation committee members. I cannot show my appreciation enough with any words to Dr. Karla Gower, my committee chair and advisor. You always encouraged and supported me not only as an academic advisor but also as a personal advisor. Your warm inspiration and advising have been my invisible weapon that I have inside myself as I got through every stage related to my coursework and dissertation.

I would also like to thank Dr. Andrew Billings for being my academic advisor. I am so glad that I took your doctoral seminar class Sports Media three years ago; it changed my research interest to sport public relations. Your passion for research in sport communication inspires me, and your lucid advising gave me clear answers and directions every time I needed them throughout my whole doctoral process.

I am thankful to Dr. Lance Kinney, my dissertation committee member. Your advising was greatly helpful for me through every process in the doctoral program, from the first research method course to writing my dissertation.

I want to thank Dr. Kenon Brown, who was also my dissertation committee member and research advisor. Your confident attitude and knowledge of research always gave me encouragement and inspiration as well as actual help in writing this dissertation. Without your help in analyzing the date, I could not finish the dissertation.
I would like to give my thankfulness and respect to Dr. Ken Wright, who is the last dissertation committee member. Even though I was a kind of alien to the Sport Management program, you showed me full support and encouragement. I will never forget your kindness. I also learned how to apply practical examples and phenomena to social scientific investigation from your stimulating lessons.

I want to give my appreciation to Dr. Shuhua Zhou in the doctoral program in the College of Communication and Information Sciences. I remember the moment that I first met you via Skype interview and imagine what might have happened if you did not give me the opportunity to study at the University of Alabama. You were always there for me whenever I was glad or even sad. I also thank Dr. Wilson Lowrey, my research advisor, for your full support in the entire doctoral process. Your sincere advice made me a stronger and better scholar.

I also owe a lot to my fellow doctoral students, Dr. Se Na Lim, Dr. Yeojin Julie Kim, and Sung Eun Park. I feel very lucky to have met all of you in my days in the doctoral program. Like many other doctoral students, I have been through several periods of difficulty, and I could not have continued to study without you guys as friends and supporters.

Lastly and most importantly, I thank my family: Dad, Mom, and my brother. It was not easy for you guys to send me to a totally different world. Without your support and understanding I could not even have decided to start studying. As always, I love you.
CONTENTS

ABSTRACT ................................................................................................................................. ii
DEDICATION ............................................................................................................................... iv
LIST OF ABBREVIATIONS AND SYMBOLS ............................................................................ v
ACKNOWLEDGMENTS ............................................................................................................... vii
LIST OF TABLES ......................................................................................................................... xi
LIST OF FIGURES ..................................................................................................................... xii
CHAPTER 1 INTRODUCTION .................................................................................................... 1
  Sport fans ................................................................................................................................. 2
  Team identification ................................................................................................................ 3
  Organization-public relationships ........................................................................................... 4
  Integration of team identification and organization-public relationships ......................... 5
  Purpose of the Dissertation .................................................................................................... 6
  Significance of the Dissertation ............................................................................................. 7
  Overview of the dissertation ................................................................................................... 8
CHAPTER 2 REVIEW OF LITERATURE ..................................................................................... 10
  Social Identity Approaches .................................................................................................... 10
  Team Identification ............................................................................................................... 15
  Antecedents of team identification ....................................................................................... 23
  Organization-Public Relationships ......................................................................................... 25
  Attitudes toward the Team and Behavioral Intentions ........................................................... 33
## Gender and Fandom............................................................... 41

Proposed Model and Hypotheses............................................. 43

### CHAPTER 3 METHODOLOGY................................................. 44

Hypotheses and Research Questions..................................... 44

Survey Procedure and Sampling......................................... 45

Measures............................................................................. 46

Reliability and Validity.......................................................... 51

Statistical Analyses.............................................................. 55

### CHAPTER 4 RESULTS.......................................................... 58

Descriptive Statistics......................................................... 58

Testing Hypotheses and Proposed Path Model...................... 61

Research Questions............................................................ 67

### CHAPTER 5 DISCUSSION...................................................... 76

Summary of Hypotheses and Research Questions.................. 76

Theoretical Implications..................................................... 79

Practical Implications.......................................................... 89

Limitations and Suggestions............................................... 91

Conclusion........................................................................... 92

REFERENCES......................................................................... 94

APPENDIX 1 QUESTIONNAIRE............................................. 106

APPENDIX 2 IRB APPROVAL................................................ 113
LIST OF TABLES

Table 3.1. Sport Media Consumption (Modified from James, 2001) .................................. 48
Table 3.2. Short version of TEAM*ID scale (Lock et al., 2014) ........................................ 49
Table 3.3. Organization-public relationships measurement ................................................. 50
Table 3.4. Attitude towards the team (Kim & Chan-Olmsted, 2005; Lee & Ferreira, 2012) ...... 50
Table 3.5. Inter-item reliability of the pretest .................................................................. 54
Table 3.6. Inter-item reliability of the main test ................................................................. 54
Table 3.7. A summary of the statistical analyses for hypotheses and research questions ...... 57
Table 4.1. Categorical demographic information of the respondents ............................... 59
Table 4.2. A summary of variables .................................................................................... 60
Table 4.3. Goodness-of-fit indexes of the path model and CFA / Correlation model .......... 63
Table 4.4. Path analysis of the proposed model ................................................................. 66
Table 4.5. Standardized factor loading in the CFA model .................................................. 70
Table 4.6. Correlation coefficients for conformed factors from the CFA model ............... 73
Table 4.7. Standardized coefficient in male and female groups ........................................ 74
Table 4.8. Critical ratio differences in male and female groups ........................................ 75
LIST OF FIGURES

Figure 2. 1. A model of the theory of reasoned action (Fishbein & Ajzen, 1975) ..................... 35

Figure 2. 2. A model of the theory of planned behaviors (Ajzen, 1991) .......................... 35

Figure 2. 3. The proposed model ......................................................................................... 43

Figure 4. 1. The proposed path model .................................................................................. 64

Figure 4. 2. The CFA / Correlation Model .......................................................................... 68
CHAPTER 1
INTRODUCTION

If asked “Are you a sports fan?”, many people would answer that they are. In fact, a June 2015 Gallup survey on sports trends revealed that 59% of respondents described themselves as sports fans. Scholars have pointed out that sport organizations should consider their fans as lifetime partners and understand their changing needs (Abeza, O’Reilly, & Reid, 2013).

Attention to the sports industry and sports fans is not a new trend, even though the popularity of specific sports has changed over many decades. In particular, the recently developed media technologies and media environment make sport fans enjoy sport contents in various ways and in turn make sports fans more important parties in the sport-related markets. Geographic and physical boundaries have been removed. For example, Major League Baseball provides various packages of online viewership on MLBTV.com. Not only viewers in the U. S., but also global viewers can buy various packages to enjoy seasonal games. These changes make sports spectatorship and fanship different from previous generations. Sometimes sports fans are spectators who watch the game in person and sometimes they are viewers watching the games via online live streaming service in MLBTV.com.

Under these circumstances, sport teams want to know who their fans are, what characteristics the fans have, and how they can use the characteristics of fans in marketing strategies. Besides practical attention, scholars in various academic fields are also interested in these topics. Many researchers seek to know how sport fans become involved and form
relationships with teams and sports in many ways, but few have tried to define exactly who a sport fan is.

**Sport fans**

The term “sport fan” refers to various kinds of people, such as spectators, viewers, consumers, and fans. Even practitioners and scholars sometimes interchangeably use the term sport fan with other terms above. A simple definition of a sport fan is “an individual that is interested in and follows a sport, team, and/or athlete” (Wann, Melnick, Russell, & Pease, 2001, p. 3). Wann et al. pointed out that spectators and fans should not be confused, because some fans rarely watch games in person while some spectators do not identify themselves with a favorite sport team or player. Giulianotti (2002) created a taxonomy of spectator identities that compared fans with supporters, followers, and flaneurs based on two criteria: hot-cool and traditional-consumer. Flaneur means stroller or lounging in French and refers to a cool consumer of sport content with little solidarity with others. Compared to supporters, followers, and flaneurs, fans are considered “hot” because they strongly identify themselves with a team. Their strong identification with a team and favorite players easily leads them to consume team-related products directly through the purchase of items such as merchandise and indirectly through media contents regarding the team. Fans express their involvement and attachment with teams and players, showing their emotions and feelings. For example, they call players by their first names and have nicknames for the team. Giulianotti also explained that fans compared to supporters, followers, and flaneurs have a strong social solidarity. But the greater the geographic distance from the team, the weaker the social solidarity. Thus fans tend to be involved with local sport teams (Wann, 2006).
Meanwhile, Reysen and Branscombe (2010) defined the difference between fanship and fandom in terms of the direction of a fan’s connection: personal connection to a sport team is fanship, and connection to other fans of the team is fandom (Reysen & Branscombe, 2010). Considering that fanship is identification with the team, Reysen and Branscombe suggested that the concepts of fanship and team identification can be used interchangeably. By contrast, fandom is a kind of social identity that is explained by social identity theory in terms of identification with and favoritism toward other in-group members.

Numerous scholars in various communication arenas have interest in who sport fans are and how they behave in their relationship with their favorite teams. Significantly, there are two perspectives surrounding the relationship between fans and teams: team identification in the sport communication context and organization-public relationships in the public relations context.

**Team identification**

The first theoretical perspective of this dissertation is team identification in the context of sport communication. Originating from social identity approaches (Tajfel & Turner, 1979), team identification is a theoretical concept to explain how individuals perceive their identification based on in-group (favorite sport team) bias and how the team identification influences the teams’ strategies and practices and fans’ consequent behaviors. Sport fans identify themselves as in-group members of their team and consequently engage in behaviors like attending games in stadiums, discussing previous games with other fans, and buying team-related products (Wann, 2006).

Even though team identification has been used to find out how sport fans’ individual perceptions of their identification with the team are related to their behaviors in various studies, scholars have not paid much attention to how the degree of team identification affects the way
sport teams construct relationships with fans. Sport public relations practitioners should consider not only team identification to understand their fans’ characteristics and measure their attachment to and involvement with the team, but also additional relationship theories to better understand the characteristics of relationships between teams and their fans. This understanding of sport fans’ individual perceptions helps construct marketing strategies for sport teams. A deeper understanding of the relationship between sport fans and organizations provides perspectives from the organizational side as well as the publics’ side.

**Organization-public relationships**

Studies involving sport teams and sport fans in the public relations literature view sport teams as a kind of organization and sport fans as one of these organizations’ key publics. Thus, these studies come within the literature on organization-public relationships, which focuses on the nature of the relationships between organizations and their key publics, how key publics act in interactive ways in their relationships with organizations, and how the degree of the relationship works in practice.

After Ferguson (1984) insisted on the importance of focusing on the relationships between organizations and publics in public relations research, many researchers expanded the theoretical aspects of these relationships. In the 1990s and early 2000s, scholars focused on developing relationship dimensions. Recently, they have been trying to apply dimensions of organization-public relationships in various areas such as crisis communication and reputation management. The current study maintains that the organization-public relationship theory can also be applied to team identification in the arena of sport public relations.

Organization-public relationships theory assumes that key publics willingly involve with specific organizations. This assumption has similarity with the basic understanding in team
identification. Compared to other relationships between organizations and their key publics, the relationship between sport organizations and their fans certainly show the interactive relationship. The characteristics of sport fans—they are sometimes consumers as well as self-identified supporters—are ideally interactive key publics that are described in the public relations theories. Sport fans are interactive and proactively attach themselves to their favorite teams and individual athletes (involved organizations in perspectives of organization-public relationships), these behaviors are similar to key publics.

**Integration of team identification and organization-public relationships**

By making a theoretical connection between the two concepts of team identification and organization-public relationships, the current study intends to investigate how organization-public relations and team identification work together in the model including antecedents like duration and sport media consumption and dependent variables such as attitudes and behavioral intentions. As discussed, team identification is more about the characteristics of fans themselves, while organization-public relationships reflect the characteristics of the relationships rather than individual publics. To better understand the relationships between fans and organizations, the concept of team identification will be broadened from individual perspectives to relational perspectives. Further, public relations practitioners in sport organizations might apply relationship management measurements and strategies to their target publics (identified fans). Based on personal perspectives along with team identification and relational perspectives plus relationship management, practitioners can thoroughly understand their fans as fully targeted stakeholders and construct relationship strategies based on the understanding.
**Purpose of the Dissertation**

The primary purpose of this research is to construct a model of team identification and organization-public relationships with various antecedent variables and dependent variables including attitude toward the team and behavioral intentions. Based on a thorough review of previous studies, the model contains antecedent variables such as duration of fandom and sport media consumption as well as a moderator variable of gender. The secondary purpose of this dissertation is to examine the correlations among dimensions of team identification and organization-public relationships in order to integrate a theory with public relations perspectives.

To be more specific, this study focuses on confirming the effect of team identification and organization-public relationships on attitudes toward sport organizations and behavioral intentions. Previous researchers have investigated the significant role of team identification in sport marketing and management. Behavioral intentions might be representative indicators of actual behaviors of sport fans, such as purchasing team-related products and intention to attend games as well as general attitudes toward the team. In addition, attitudes and behavioral intentions are very important outcome variables to examine the effects of organization-public relationships too. This dissertation examines and confirms how team identification and organization-publics relationships separately and together affect attitudes and intentions.

Secondly, this study investigates which antecedent variables between duration of being a fan and sport media consumption can directly influence team identification and organization-publics relationships. Also, the study explores not only how the variables that are explained above are included in the model of team identification and organization-public relationships, but also whether a gender variable works as a moderator in the model or not.
Thirdly, and most importantly, the current study examines correlations among team identification dimensions and organization-public relationships dimensions. Even though team identification relates to ideas and feelings individuals have toward the sport organization, there has been little research on the aspect of the organization per se. Therefore, connecting team identification (individuals’ personal perception of themselves) and OPR dimensions (individuals’ perception of the organization) provides theoretical and practical implications for sport public relations.

**Significance of the Dissertation**

Theoretically, the current dissertation seeks to provide a visual model of team identification and organization-public relationships that has been lacking in previous research. In previous research, scholars have focused on developing and investigating theoretical concepts, measurements, and scales rather than constructing models.

In addition, the findings provide insights into how sport organizations might consider their key publics (in other words, their fans) in terms of organizational relationship management. Sports fans are unique publics with characteristics and behaviors that are different from those of general customers and supporters. They devote themselves to their favorite teams. In that way, we need to think of sports fans as identified publics to specific organizations. However, previous studies have paid little attention to the impact of sport fans’ identification on improving and maintaining positive relationships with their fans through public relations practices. This study provides implications and explication about the unique relationship between sport organizations and their identified fans. Therefore, this relationship might be an example for other organizations that have key publics who have strong involvement with the organizations.
If there are common or intersecting points between dimensions of team identification and organization-public relationships outcomes (for example, commitment or trust in team identification and commitment or trust in organization-public relationships outcomes), it is possible to associate team identification with organization-public relationship outcomes. Because team identification is based on individuals’ psychological perceptions of themselves, the concept of team identification can be expanded to relational concepts such as organization-public relationships or at least be re-constructed as having both individual and relational aspects. It may be possible to integrate team identification and organization-public relationships into a new concept that could be used in sport marketing and sport public relations.

**Overview of the dissertation**

The introduction explains the purpose, significance, and overview of the dissertation through a concise explanation about sport fans, team identification, and organization-public relationships.

In the review of the literature, social identity approaches including the social identity theory and the self-categorization theory as foundational theories of team identification are reviewed. After that, team identification and its antecedent variables such as duration of being a fan and sport media consumption and gender variable as a moderator are thoroughly reviewed. Organization-public relationships and dependent variables (behavioral intentions and attitudes) are also thoroughly discussed. Based on the review of literature, hypotheses and research questions and a proposed model are presented at the end of the chapter.

The methodology chapter explains how a survey was developed and conducted with Amazon Mechanical Turk, samples collected, and data statistically analyzed. The results chapter presents the data analysis and results related to the hypotheses and research questions. The final
chapter contains a summary of the results, theoretical and practical implications for public relations practitioners and sport communicators, and limitations and suggestions as well as conclusions drawn from the research.
CHAPTER 2

REVIEW OF LITERATURE

The purpose of this study is not only to investigate the relationships among team identification, antecedents, attitudes and behavioral intentions, and organization-public relationships, but also to suggest a possible model including these variables. Therefore, the literature in the following areas was reviewed: social identity approaches including social identity theory and self-categorization theory, team identification, organization-public relations, antecedents of the model such as duration of being a fan and sport media consumption, and gender as a moderator and attitudes and behavioral intentions.

Social Identity Approaches

Social identity theory. The social identity theory (SIT) of Tajfel and his colleague provides understanding of how interactions on the basis of social group at the intergroup level apply to interactions on the basis of individual characteristics at the interpersonal level (Horsey, 2008; Tajfel & Turner, 1979), as its original name (the cognitive-motivational theory of intergroup relations) represented. Scholars explain that individuals want high self-esteem, and self-esteem is established by being members of social groups (Tajfel & Turner, 1986). The three elements of SIT are identification, categorization, and comparison (Hogg & Terry, 2000; Horsey, 2008; Scott, 2007). A social identity allows individuals to appreciate themselves as a part of a group, and the group becomes a part of the individual’s self-concept as a result. Categorization is a means of classification of individuals into distinct groups of “us” and “them” in competitive
terms. Comparison of the in-group with out-groups may create a heightened sense of self-esteem as a result of the comparison.

**Self-categorization theory.** After Tajfel’s death in 1982, Turner and colleagues sought to elaborate and refine the cognitive element of self-categorization (Hornsey, 2008; Trepte, 2006). Self-categorization theory (SCT) suggests that “the process of categorization occurs through the accentuation of similarities within groups and differences between groups in comparisons with a prototype member” (Mastro, 2003, p. 101). According to Reid (2012), activation of in-group prototypes establishes an essential for social perception and judgment of individuals. The theory pays attention to group behaviors of individuals according to the concepts of intergroup distinctions and social identity from social identity theory (Mastro, 2003). SCT has provided explanations for “group polarization, stereotyping, social influence, group cohesion, leadership endorsement, the third-person perception, the operation of group norms, and gender-language links” (Reid, 2012, p. 384). In perspectives of communication principles, self-categorization theory helps explain why and how people enjoy specific entertainment such as television programs that show people similar to themselves. People “seek out entertainment that favors their ‘in-group,’ sometimes even drawing a sharp line to distinguish them from other ‘out-group’ people” (Trepte, 2006, p. 255).

Social identity theory and self-categorization theory have the same assumptions and share methodologies in their development (Hornsey, 2008). Even though SIT and SCT are both interested in social identity, SCT intensively focuses on the transition from interpersonal to intergroup behavior (Trepte, 2006). Because of the similarities between the two theories, scholars use the “social identity perspective” or the “social identity approach” to integrate SIT and SCT, even though there are some differences between them (Hornsey, 2008).
First, SIT explains individuals’ total cognitive process of transitioning from personal identity to social identity with concepts of identification, categorization, and comparison, while SCT focuses on individuals’ behaviors according to individuals’ categorization of in-groups and out-groups (Hornsey, 2008). In other words, SIT theorists are interested in how individuals figure out their social identity compared to their personal identity, while SCT theorists want to know how categorization works in stereotyping and out-group derogation of individuals.

Furthermore, through its focus on the process of categorization, SCT explains that individuals’ identities work at multiple levels of inclusiveness, while SIT understands that interpersonal and intergroup dynamics are on a bipolar spectrum (Hornsey, 2008). To be more specific, scholars of self-categorization theory argue that there are three levels of self-categorization: the superordinate category of the self as a human being (human identity), the intermediate level of the self as a member of a social in-group as defined against other groups of humans (social identity), and the subordinate level of personal self-categorizations based on interpersonal comparisons (personal identity; Hornsey, 2008). The degree of salience of different levels of self-categorization varies in different situations and among individuals, meaning that personal identity and social identity might both be salient sometimes (Trepte, 2006; Turner & Onorato, 1999).

Finally, SCT explains the depersonalization process collectively, while SIT highlights each individual’s identification process. Scholars maintain that people understand their social group members in terms of prototypes rather than individuals. When categorization is clear, people more and more perceive themselves and each member of social groups as examples of prototypes of the social groups rather than as individuals. These prototypes provide individuals with representative attitudes, emotions, and behaviors they should have in the group. In that way,
people perceive collective prototypes of their in-groups as well as out-groups. Based on the understanding about this process to perceive prototypes, communication scholars have applied self-categorization theory in studies on media portraits and media prototypes.

**Social identification.** Identity is “a cognitive construct of the self – fundamentally relational and self-referential, that answers the question who am I” (Korte, 2007, p. 168). Basically, the “self” is made up of collective personal traits based on individuals’ characteristics (Korte, 2007). Additional concepts have been developed to explain individuals in organizations, groups, and societies. In that sense, scholars have investigated social self and individuals’ behaviors as persons and members of specific groups (Abrams & Hogg, 1990; Turner & Onorato, 1999; Korte, 2007). According to Korte, the process of social identification starts with individuals’ perception of themselves based on a limited cognitive schema (norms, values, and beliefs), which is “a structure of complex, rich, affectively charged, interrelated concepts about the self” (p. 168). Through the process of social identification, individuals’ personal behaviors change and transform to fit the norms, values, and beliefs of groups they belong to (Turner & Onorato, 1999).

**Social categorization.** One essential assumption of social identity theory is that a positive social identity is dependent on favorable intergroup comparisons (Brown, 2000). Individuals join various groups based on their readiness to access and fit in, as well as the group’s accessibility (Turner & Onorato, 1999). The choice of groups depends on various conditions such as individuals’ history, personality, and status as well as accessibility (Korte, 2007). Individuals make their own social identity based on the process of self-categorization when they understand the social norms that let them know what behaviors they should do in the social groups (Korte, 2007). In other words, this guidance becomes a prototype that individuals should follow and
reflect in the group. Korte explained that these categorization or stereotyping processes reduce uncertainty about behavior patterns. Tajfel (1981) argued that “categorization and stereotyping cannot be understood by considering them solely as information-processing devices which facilitate and simplify individual thinking” (cited in Brown, 2000, p. 750). Consequently, individuals start to recognize members of their in-groups as “us” and members of their out-groups as “them” in order to process information and reduce uncertainty.

**Social comparison and in/out-groups.** Social comparison is a type of behavior that is triggered by social categorization (Trepte, 2006). To maintain self-concepts, individuals want to make distinctions between the in-group and out-group that are advantageous to the in-group. When people select comparative dimensions, choice maximizes differences along favorable, socially valued dimensions (Mastro, 2003). Individuals are motivated not only to maximize positive aspects of the in-groups, but also to associate negative characteristics with the out-groups (Mastro, 2003). Brown (2000) pointed out that “the most common form of favoritism-biased intergroup evaluations is a prototypical manifestation of the theory’s hypothesized need for positive distinctiveness” (p. 747).

**Stereotyping and self-esteem.** People perceive themselves as members of various groups such as workplaces, organizations, professions, industries, nations, societies, and races (Korte, 2007). Through the process of identification, categorization, and comparison, individuals construct stereotypes of specific groups and boost their own self-esteem. Stereotypes are distinguished from prototypes and indicate negatively typical perception of out-group members. Hogg and Terry (2000) pointed out that individuals categorize themselves and their in-groups to distinguish group boundaries and membership and compare between salient groups to achieve self-esteem. Dietz-Uhler, End, Demakakos, Dickirson, and Grantz (2002) explained that self-
esteem is established and maintained when the in-group is judged more favorably than the out-group. In addition, this process of categorizing individuals into groups is followed by “motivated in-group bias” (p. 161). According to Sanderson (2013), social identity leads to individual mobility, social creativity, and social competition (Tajfel & Turner, 1979). In other words, individuals attempt to move to higher status groups (individual mobility), find positive distinctiveness by comparing their in-group with out-groups on a new dimension or changing combination of values and attributes of the group (social creativity), or search for positive distinctiveness by applying direct competition with out-group (social competition). For example, people seek a sense of pride, involvement, stability, and meaning within their in-groups (Korte, 2007).

The explanations of favoritism toward in-groups and discrimination toward out-groups in social identity approaches have been applied to explain team identification in sport communication. In particular, operationalization of the concept of discrimination can be applied to explain sport fans’ competition with rivals in team identification.

**Team Identification**

Team identification refers to “the extent to which a fan feels a psychological connection to a team and the team’s performances are viewed as self-relevant” (Wann, 2006, p. 332). Borrowing an idea from Ashforth and Mael (1989), Lee, Heere, and Chung (2013) explained it as “sport spectators’ or fans’ tendency to connect to their teams and as experiencing the teams’ successes and failures as their own” (p. 205). This concept has been applied to explore the relationships around sport fandom (Wann, 2006).

It is true that social identity approaches and team identification share fundamental assumptions. Even though the concept of team identification has been completely developed in
sport communications and sport marketing areas and these fields have their own measurements and hypotheses, the fundamental principles are commonly shared in both theories. Highly identified sport fans display favoritism toward their favorite teams and even other fans who support the same teams but hostility toward opposing and rival teams (Wann & Branscombe, 1993; Wann & Grieve, 2005; Fink, Parker, Brett, & Higgins, 2009). As social identity approaches explain, sport fans consider their favorite teams to be an extension of themselves (Fink et al., 2009).

As discussed in the first chapter, fandom and fanship are distinctive in that fandom is toward the object itself, and fanship includes fellows as well as the object. In social identity approaches, identification and categorization explain how individuals perceive their identities in in-groups. Expressing the importance of in-group members, scholars who study team identification also maintain that the perception of followers of the same team is an essential component in the identification of sport fans with their favorite team. Wann, Royalty, and Roberts (2006) insisted the existence of team followers is an essential component of the self identity of highly identified fans, while it is only a peripheral component of the self identity of less-identified fans. Consequently, “highly identified fans would be more likely to use their association with a team in a self-presentational manner than lowly identified fans.” (Wann et al., 2006, p. 199)

Many researchers are not only developing measurements and scales of team identification, but also seeking relationships among the degree of team identification and other variables (Fink et al., 2009; Heere & James, 2007b; Spinda, 2011; Trail et al., 2012). For example, the degree of team identification leads to specific consequences, which are categorized into behavioral (e.g., fan aggression), affective (e.g., emotional responses to the team’s performance), and
psychological (e.g., the impact of team performance on the fan’s psychological well-being; Wann, 2006). High team identification brings responses such as attending games and purchasing team-related merchandise and even team sponsors’ products (Wann & Grieve, 2005), as well as favorable evaluations toward athletes, coaches, and other fans of their favorite sports teams (Dietz-Uhler et al., 2002).

**Measurements.** Recently, many scholars have tried to measure the degree of team identification in various situations of fanship (Bernache-Assollant et al., 2007; Campbell et al., 2004; Fink et al., 2009; Heere & James, 2007b; Kwon et al., 2008; Spinda, 2011; Trail et al., 2012; Wann & Branscombe, 1993). The representative scale of team identification is the sport spectator identification scale (SSIS; Wann & Branscombe, 1993). The SSIS includes items such as, “I am more likely to read stories online to savor the favorite team win,” “I am more likely to display the favorite team logo, emblem, or insignia where I live,” and “I usually wear clothing or jerseys that display the favorite team logo, emblem, or insignia.”

While the SSIS is a single dimension, Heere and James (2007b) developed a multi-dimensional team identification scale that includes six dimensions of team identification: public evaluation, private evaluation, interconnection of self, sense of interdependence, behavioral involvement, and cognitive awareness. They collected lots of statements from psychological disciplines such as self-categorisation, evaluation, importance, attachment, social embeddedness, behavioral involvement, and cognitive awareness and modified them to fit the team identification concept. Through several stages of the study for statistical correlations between items, factor analysis, and tests for validity and reliability, the six dimensions above were finally suggested. Lock, Funk, Doyle, and McDonald (2014) conducted a study to examine additional validity and reliability of the measurement TEAM*ID instrument, which Heere and James (2007b) admitted
was exploratory. To be more specific, behavioral involvement is considered as a direct expression of a person’s identification with the particular group (Heere & James, 2007b), and cognitive awareness means “the degree of knowledge a person has of a group that directly implicates his or her identity with the group as a whole” (p. 70). Also, Heere and James found that interconnection of self to the team and sense of interdependence of self-concepts can be divided from the original concepts of attachment to the group. Interconnection of self is the tendency of the merging of the self and a group, and interdependence of self means recognition of others in the same group. Evaluation (private and public) is the individual’s positive or negative attitude toward the group. Private evaluation is self-evaluation of a group, while public evaluation is his or her perception of others’ views (Heere & James, 2007b).

**Motives and Antecedents.** Wann (2006) categorized the causes of team identification into psychological, environmental, and team-related reasons. First, sports fans have a need for belonging to a specific or distinctive group (psychological cause). In other words, individuals’ desire to belong to communities and groups is one of the biggest reasons for choosing a favorite team. In addition, they experience a socialization process at various community levels, such as influences from family, school, and local community (environmental cause). If one’s parent or sibling is a fan of a specific team, one might be easily a fan of the same team. Finally, team-related causes refer to organizational characteristics, team performance, and player attributes or attractiveness. On the other hand, Heere and James (2007a) suggested two categories of external identification that sport teams have that strengthen their fans’ team identification and team loyalty. Demographic categories such as geographic, ethnic/racial, gender-based, sexuality-based, and social class-based and membership organizations categories including vocational (university
and corporate), religious, and political are various factors of external identification that sport teams have.

Researchers have investigated what other antecedents affect the degree of team identification, for example, sensory (Lee et al., 2013), gender (Ware & Kowalski, 2012), time (Branscombe & Wann, 1991), team performance (Fisher & Wakefield, 1998; Kwon et al., 2008), and condition of athletic facilities. There have also been studies on the impact on team identification of, for example, on/off-field behaviors of athletes (Fink et al., 2009), specific media consumption (Park & Dittmore, 2014; Gau & Kim, 2011), and social media consumption (Smith & Smith, 2012). For example, Kwon et al. examined how the vicarious achievement people feel affects team identification and emotional reactions after the team’s performance. Fisher and Wakefield (1998) investigated the factors that influence group identification of fans in the case of successful and unsuccessful teams. In the case of successful teams, domain involvement and perceived group performance were reasons for group identification, while in the case of unsuccessful teams, domain involvement and group member attractiveness were reasons for group identification. Also, Lee et al. (2013) found that among humans’ five senses, sight, sound, touch, and smell affected team identity, and sight, touch, and smell positively affected team loyalty.

Meanwhile, scholars seek various motives that might explain team identification. For example, Wann et al. (2001) suggested the eight most common sport fan motives as group affiliation, family, aesthetic, self-esteem, economic, eustress, escape, and entertainment. Kim et al. (2013) suggested eight motives for attendance intention that were moderated by team identification: aesthetics, drama, escape, knowledge, physical skill, social interaction, added value, and vicarious achievement. Fink et al. (2002a) found seven motives (vicarious
achievement, acquisition of knowledge, aesthetics, social interaction, drama/excitement, escape, and quality of physical skill of the participants) that significantly influenced team identification. These motives slightly and moderately affect attendance intention, and team identification serves as a moderator among these variables (Kim, James, & Kim, 2013).

**Consequences.** Wann (2006) explained that there are three different responses to team identification: affective, behavioral (consumption and aggression), and psychological.

**Affective responses.** Specifically, affective responses include emotions related to the favored team’s performance and the rival team’s performance (Wann, 2006). Highly identified sports fans show great anxiety and arousal when they watch their favorite team perform (Branscombe & Wann, 1991; Dietz-Uhler et al., 2002), and they enjoy attending sporting events (Wann & Schrader, 1997).

Havard, Reams, and Gray (2013) investigated what factors affect perceptions of favorite and rival teams by highly identified fans, assuming that highly identified fans experience much more negative feelings than lowly identified fans. They found that holding season tickets and the recent performance of the favorite team against the rival team are positive factors that affect the perception of highly identified fans regarding rivalry teams. Dietz-Uhler et al. (2002) found a strong connection between degrees of team identification of individuals toward players of their favorite teams. Regardless of whether the player was involved in a crime, if the player belonged to the favorite team, highly identified fans showed high favoritism toward the player.

**Behavioral responses.** The representative behavioral responses are consumption of something related to a team. According to Wann (2006), studies on consumption related to team identification are about games, team-related aspects, and sponsorship of products. Because studies on team identification focus on possible consuming behaviors rather than actual
behaviors, attitudes and behavioral intentions have often been considered consequences in studies on team identification. Ajzen (1991), who suggested the theory of planned behavior, explained that attitudes and personality traits are involved with human behavior based on observation of aggregated and valid samples of behavior. To be more specific, team identification is the strongest factor in higher attendance intention (Kim et al., 2013; Matsuoka, Chelladurai, & Harada, 2003; Wann, 2006; Wann & Branscombe, 1990). In addition, Kwon and Armstrong (2002) found that team identification is an important predictor of impulse buying of team-licensed merchandise as well as amount of money spent on purchase.

Wann (2006) suggested aggression (e.g., verbal assaults, throwing missiles, disrupting play, fighting, and vandalism) as another behavioral response to team identification. Also, Wann et al. (2006) explained that people with strong team identification might show highly enhanced self-esteem after won games and higher aggression than people with lower team identification. Team identification is related to hostile aggression, instrumental aggression, rioting, and parental violence at youth sporting events (Wann, 2006). This aggression response is related to teams’ performance, especially performance against the rival teams.

**Psychological responses.** BIRGing and CORFing are representative psychological responses of team identification after a team’s performance (Wann, 2006) and are the most popular topics in the team identification literature. BIRGing refers to “basking in reflecting glory,” which means that sports fans feel good when their favorite teams win or achieve high records of performance (Lee et al., 2013). CORFing stands for “cutting off reflected failure,” which means that sport fans put psychological distance between themselves and their favorite teams when the teams lose or show poor performance (Lee et al., 2013). Scholars studied not only how team identification correlates with BIRGing and CORFing but also when a high degree
of BIRGing/CORFing shows (e.g., Bercache-Assollant et al., 2007; Trail et al., 2012; Campbell et al., 2004, Kwon et al., 2008). When the team wins, sports fans show their associations with the team’s performance so that others think the fans are as successful as the team (Trail et al., 2012). A BIRGing reaction leads to additional behavioral reactions such as purchasing team-related products, wearing and displaying them, and chatting with other supporters about their opinion of team performance.

Fink et al. (2009) explained that when sport fans hear negative news about their favorite team, highly identified members reaffirm their membership, while less-identified members show distance from the team (Fink et al., 2009; Wann & Branscombe, 1990). Wann and Branscombe explained that sport fans demonstrated basking in reflected glory and cutting off reflected failure based on the favorite teams’ performance in order to maintain their self-esteem. Furthermore, highly identified fans intend to find different reasons for the favorite team’s win or loss than less-identified fans (Fink et al., 2009; Wann & Dolan, 1994). To be more specific, highly identified fans seek internal reasons for victory, such as the skill of the team, coaching, and fans’ support, but they consider external reasons such as fate and poor refereeing as reasons for loss (Wann & Dolan, 1994).

Sport fans’ perception of rival teams’ performance compared with their own favorite teams is another topic related to team identification (Havard et al., 2013). If the favorite team’s performance against rival teams is better than the performance against non-rival teams, levels of team identification are higher than in other cases (Hillman et al., 2004). Also, when fans meet rival teams (as opposed to other teams), their levels of team identification are higher than usual (Smith & Schwartz, 2003).
Studies on team identification and rivalry bring to mind social identity approaches and outcomes of self-esteem because the approaches explain that identification and categorization consequently boost self-esteem. Branscombe and Wann (1991) claimed that a higher degree of team identification boosts self-esteem and feelings of belongingness and reduces depression and alienation. It also creates stronger attachment of individual fans regardless of the performance of the team. Phua (2010) argued that use of online media among other types of media is positively associated with team identification and collective self-esteem as well as moderates the relationship between two variables: media use and team identification.

Antecedents of team identification

Possible antecedents that affect team identification can be categorized as psychological, environmental, and team-related causes, as Wann (2006) and others have suggested and examined. Among the various antecedents, the current study specifically paid attention to two variables: length of time being fan and sport media consumption.

Time. Time is an important factor that increases the stability of an individual’s level of identification with a particular team, while other factors, such as outcome or location of the previous game, were not consistently related to identification (Wann, 2006; Wann et al., 2006). Wann et al. (2006) explained that team identification is not a result of the team’s most recent game but is highly consistent from game to game and from season to season. Branscombe and Wann (1991) found that short-term fans were less involved with team performance than long-term fans. In the current study, it was assumed that sports fans who have been fans for a longer time would show higher involvement, which means a higher degree of team identification.

In addition to the perspective of team identification, time is an important predictor for organization-public relationships (Ledingham, Bruning, & Wilson, 1999). Speaking generally,
the definition of relationship management itself includes expression about time: “effectively managing organization-public relationships around common interests and shared goals, over time, [which] results in mutual understanding and benefit for interacting organizations and publics” (Ledingham, 2003, p. 190). To be more specific, the amount of time that key publics have been involved with organizations has an effect on their attitudes toward the relationships (Bruning & Hatfield, 2002; Ledingham et al., 1999). Also, Seltzer and Zhang (2011b) examined time factor as long as interpersonal trust, mediated communication, interpersonal communication, and dialogic communication were significant antecedents of political organization-public relationships strength. Meanwhile, Hung (2005) indicated that communal and exchange relationships were influenced by time factor among other OPR dimensions. Therefore, the following hypothesis was presented.

H1: The duration of a person’s fandom towards a team will directly influence his/her identification with the team.

**Sport-Media Consumption.** These days, the consumption of sport events, especially professional sporting events, takes place not only in person, but also through various media. For example, major television networks and cable networks regularly air sporting events (Phua, 2014). Some cable networks such as ESPN and Fox Sports have multiple channels, so they produce various sport-related programs including highlight programs and talk shows. Sport fans can watch the games of their favorite teams in their living room. In addition to television, sport fans can access lots of information through social media and the Internet. They can watch multiple games at the same time via websites of sports channels whenever they want, live or not. Also, sport fans can communicate with the team and other supporters via various social media such as Facebook, Twitter, and Instagram. According to Park and Dittmore (2014), social media
consumption has had direct effects on team identification and attendance intention. In addition, Smith and Smith (2012) explained that the use of Twitter positively influences team identification, and Gau, James, and Kim (2009) found that sport fans who had a higher degree of team identification also showed higher levels of media consumption, including traditional and new media. The amount of time to consume these various media should affect the degree of team identification (Phua, 2014).

Therefore, the following hypothesis was presented.

H2: The amount of media a person consumes about his/her team will directly influence his/her identification with the team.

**Organization-Public Relationships**

*A new paradigm of public relations.* The concept of relationship is a core of public relations, and many scholars have stressed the importance of relationships in public relations studies (Brunner, 2008). Grunig, Grunig, and Ehling (1992) pointed out that good relationships make organizations more effective at achieving their goals. As Ferguson (1984) maintained, focusing on the relationships between organizations and publics offers the best opportunity for a new paradigm that includes publics in public relations strategies and plans. The concept of organization-public relationship (OPR) started from interpersonal communication studies, and scholars have developed various OPR dimensions (e.g., Ferguson, 1984; Grunig et al., 1992; Ledingham & Bruning, 1998; Hon & Grunig, 1999; Huang, 2001b; Jo, 2006) as well as applied OPR outcomes in various areas in public relations.

Generally speaking, research on organization-public relationships has two approaches (Bruning, Castle, & Schrepfer, 2004). First, scholars have paid attention to organization-public interactions and definitions of relationships, considering organization-public relationships as a
phenomenon rather than as the perceptions of parties in the relationship. The second approach is to focus on the relationship between outcomes of organization-public relationships such as satisfaction evaluations and behavioral intentions or actual behaviors.

**Definition of relationship.** In light of the idea that relationships are an essential concept of public relations, there have been many attempts to define “relationship.” In the early days of relationship studies, scholars used various definitions (Broom, Casey, & Ritchey, 1997). After reviewing the literature that dealt with the concept of relationships in various fields such as interpersonal communication, psychotherapy, inter-organizational relationships, and systems theory, Broom et al. (1997) defined organization-public relationships as linkages between organizations and publics to provide interdependent needs. As a result of exchanges between two parties, relationships offer mutual adaptation and contingent responses in dynamic ways (Broom et al., 1997). Similarly, a relationship in OPR is the state that exists between an organization and its key publics. Ledingham and Bruning (1998) defined OPR as “the state that exists between an organization and its key publics in which the actions of either entity impact the economic, social, political and/or cultural well-being of the other entity” (p. 62).

**Dimensions of OPR.** Scholars have been interested in developing scales and measures to investigate relationships, and qualitative methodologies in public relations studies have been employed.

While researchers have constructed the conceptual meaning of relationships and dimensions, it is obvious that there are some challenges of organization-public relationships. First, the scales of organization-public relationships, which were developed in the early research in the area, were not tested for their validity and reliability (Jo, 2006; Ki & Hon, 2007a). Secondly, Ki and Hon (2007b) argued that the term “relationship” should be refined as a
perception/cognition or attitude for the further development of relationship study in public relations. Ki and Hon said that researchers needed to clarify whether relationships are processes or outcomes.

In terms of measurement of organization-public relationships, Hon and Grunig (1999) pointed out that earlier studies on measurements of organization-public relationships were focused on the perception of only one party and that evaluating relationships from the perspective of both parties would represent “how organizational decision makers see the relationship as well as how publics see the organization” (p. 25). Similarly, measurements of OPRs have been developed based on norms from Western culture. As Huang (2001b) pointed out, global public relations has become a critical issue in this global age. To date, Huang’s measurement scale of OPRs has been regarded as a comprehensive OPR measure for an international setting, which is explained below.

Many studies on OPR have focused on measuring items and dimensions of the relationships between organizations and publics (Ferguson, 1984; Grunig et al., 1992; Hon & Grunig, 1999; Huang, 2001; Jo, 2006; Ledingham & Bruning, 1998). Early on, Ferguson suggested that the quality of an organization’s relationship with key publics could be conceptualized in terms of dynamic versus static, open versus closed, mutual satisfaction, distribution of power and mutual understanding, and agreement and consensus. Grunig et al. listed the dimensions of OPR as reciprocity, trust, credibility, mutual legitimacy, openness, mutual satisfaction, and mutual understanding. From their study on whether local telephone subscribers kept or replaced their telephone service, Ledingham and Bruning identified the relationship dimensions of trust, openness, involvement, investment, and commitment.
The dimensions of Hon and Grunig (1999) are most often used in OPR studies: control mutuality, trust, commitment, satisfaction, exchange relationships, and communal relationships. *Control mutuality* is defined as “the degree to which parties agree on who has rightful power to influence one another” (Hon & Grunig, 1999, p. 19). Control mutuality is involved in the process of any decision-making and affects the extent to which each party’s voice can be heard in the final outcome. *Satisfaction* is “the extent to which one party feels favorably toward the other because positive expectations about the relationship are reinforced” (Hon & Grunig, 1999, p. 20). Huang (2000) explained that satisfaction contains affection and emotion, while trust and control mutuality encompass cognitive functions. *Trust* is “one party’s level of confidence in and willingness to open oneself to the other party” (Hon & Grunig, 1999, p. 19). Hon and Grunig suggested integrity, dependability, and competence as subcomponents of trust. *Commitment* is “the extent to which one party believes and feels that the relationship is worth spending energy to maintain and promote” (Hon & Grunig, 1999, p. 20).

On the other hand, Kim (2001) found trust, commitment, local or community involvement, and reputation to be relationship dimensions and developed a valid and reliable four-dimension scale with sixteen items to measure them. Huang (2001b) added face and favor as distinct dimensions derived from an Eastern perspective to the previous Western perspective that included trust, control mutuality, relationship satisfaction, and relationship commitment. Derived from Confucian culture, *face and favor* refers to face saving in the sense of saving one’s social dignity to maintain respectability (Kim, 1996). Huang (2001b) explained that “maintaining face or doing face-work in front of others is important in social interactions, especially for expanding or enhancing human networks” (p. 69).
To replicate and extend Huang’s research, Jo (2006) found that trust, satisfaction, and commitment were global relational measures and added personal network as a unique aspect of Eastern culture. The “personal influence” model, in which public relations practitioners try to establish lasting personal relationships with key individuals in media, government, political, or activist groups, is often found in Asian cultures (Grunig, Grunig, Huang, Lyra, & Sriramesh, 1995; Kim, 1996). Whereas face and favor emphasize a controllable relationship strategy, personal network is often predetermined as uncontrollable external forces such as ties of blood, school, and hometown. Personal network is a prevalent belief or attitude toward the relationship development in Korean culture.

Models of organization-public relationships. Earlier studies on organization-public relationships have been criticized because they lack models to predict the process, and that is why some scholars argue that OPR is an approach, not a theory. Scholars have pointed out that OPR dimensions should be studied not only for theoretical conceptualization, but also for practical application. For example, Ledingham and Bruning (1998) explained that “relationship dimensions can be viewed as part of an integrated mix that includes variables such as product characteristics, perceptions of quality, service, price, levels of technology, demographics, and predispositions that impact the behavior of members of an organization’s significant publics” (p. 63). In that light, Broom et al. (1997) suggested a linkage between antecedents of the relationship and consequences of the relationship, which they called the communication linkage. They suggested antecedents such as social and cultural norms, collective perceptions and expectations, need for resources, perceptions of uncertain environment, and legal/voluntary necessity. Relationships contain exchanges, transactions, communication, and other interconnected activities. Finally, this linkage leads to consequences such as goal achievement, dependency/loss
of autonomy, routine, and institutionalized behavior. There are several models of organization-public relationships based on Broom et al.’s concepts. For example, Grunig and Huang (2001a) restated characteristics that describe publics with which organizations need relationships as antecedents, maintenance strategies as relationship states, and outcomes of strategies as consequences.

Bruning and Ledingham (1998; Ledingham, 2008, 2009) suggested a model of relationship management called SMART PR, in which S stands for scan, M for map, A for action (create and pretest), R for rollout or (implementation), and T for track. The model explains that practitioners should consider monitoring strategies, pretesting methods for public relations initiatives, making recommendations for implementing programs, and evaluating strategies when managing organization-public relationships. On the other hand, in terms of the effectiveness of organization-public relationship outcomes, Yang (2007) suggested a model for organization-public relational outcomes (satisfaction, commitment, trust, and control mutuality), organizational reputation, and their antecedents (familiarity and active communication behaviors).

**Antecedents of OPR.** Many scholars seek what factors increase or decrease relationships in the models that they are suggesting. Some factors that are negatively related to relationship outcomes, such as unethical behavior and lack of disclosure, might negatively affect OPR (Sweetser, 2010). Meanwhile, other factors are positively correlated with relationships (Ni & Wang, 2011). For instance, O’Neil (2008) suggested that practitioners in non-profit organizations should communicate clearly with their donors in order to have positive relationship outcomes. Among OPR dimensions, trust, satisfaction, and commitment were positively related with communication tactics.
Time is one of most effective factors affecting the relationship outcomes (Seltzer & Zhang, 2011b; Ledingham, Bruning, & Wilson, 1999). Along with other factors, such as interpersonal trust, mediated communication, interpersonal communication, and dialogic communication, time increases the strength of political organization-public relationships (Seltzer & Zhang, 2011b), and long-term organizational commitment, and mutual beneficial relationships in the earliest stages help build more positive relationships (Ledingham et al., 1999). Seltzer and Zhang (2011b) explained that interpersonal trust, mediated communication, interpersonal communication, and dialogic communication as well as time are antecedents of political organization-public relationships. In terms of the trust dimension, Brunner (2008) explained that “the long-term reputation the organization will acquire by being trustworthy will serve the organization and its publics better” (p. 155-156).

Also, scholars pointed out that active communication through mass media positively influence organization-public relationships outcomes (for example, Seltzer & Zhang, 2011a; Seltzer & Zhang, 2011b; Yang & Grunig, 2005). These scholars indicated organizational communication through various media as mediated communication and explained the mediated communication is one of communicational activity of an organization. These studies indirectly support the assumption that as publics much use or are exposed to the media related to a specific organization, they show higher degree of organization-publics relationships outcomes.

**Consequences of OPR outcomes.** To date, various consequences of organization-public relationships have been examined. Public relations practitioners should carefully consider how relationship outcomes affect consumer behavior and attitudes (Hung, 2005), brand attitude (Kim & Chan-Olmsted, 2005), and attitude and behavioral intentions toward the organization (Ki &
Hon, 2007b). Interestingly, Ki and Hon (2007b) found that only the satisfaction dimension was a significant predictor of brand attitude.

Meanwhile, Johnson and Acquavella (2012) studied how OPR dimensions are related to consumer satisfaction. Personal commitment and anthropomorphism were associated with perceived satisfaction as well as willingness to continue their relationship in the future. Bruning et al. (2004) examined how various organization-public relationship dimensions were related with evaluation and satisfaction toward a certain electrical service company and showed that personal commitment was strongly correlated with dependent variables among respondent anthropomorphism, personal commitment, professional benefit/expectations, community improvement, and comparison of alternatives attitudes.

Relationship outcomes also work as indicators of awareness, attitude, and behavioral intention in non-profit organizations (Kang & Yang, 2010) and political parties (Seltzer & Zhang, 2011a). Specifically, control mutuality increases the positive relationships between volunteers and non-profit organizations (Bortee, 2010). Commonly, the relationships were positively correlated with awareness and attitude on organizations, and the awareness and attitude are extended to support the organizations.

**Interaction between Team Identification and Organization-Public Relationships.**

The current study assumes that dimensions of team identification and organization-public relationships separately and together affect behavioral intention and attitudes. Even though there is no study on this specific topic, there is literature on the effects of organization-public relationships on brand attitudes and behavioral intentions such as purchase intentions (for example, Huang, 2001a; Hung, 2005; Kang & Yang, 2010; Ki & Hon, 2007b; Kim & Chan-Olmsted, 2005). In particular, Kang and Yang showed that OPR outcomes work as mediators
among awareness, attitude, and supportive behavioral intentions toward an organization. In addition, Huang examined the mediating effect of OPR outcomes between public relations strategies and conflict strategies.

Based on the previous research on organization-public relationships, this study assumes that dimensions of organization-public relationship outcomes including commitment, trust, control mutuality, and satisfaction are correlated with team identification, and these outcomes act as moderators between team identification and positive attitudes and behavioral intentions (purchase intentions of team-related products and intention to attend games). As recent studies of team identification represented, the concept includes relational aspects (Heere & James, 2007b). OPR dimensions help find the intersection between the two concepts and lead to greater understanding of team identification in the public relations context.

Thus the following research questions were addressed:

RQ1: What dimensions of the outcomes of an organization-public relationship correlate with the dimensions of team identification?

H3: The duration of a person’s fandom towards a team will directly influence his/her relationship with the team.

H4: The amount of media a person consumes about his/her team will directly influence his/her relationship with the team.

**Attitudes toward the Team and Behavioral Intentions**

In the previous research about the various consequences of team identification and organization-public relationships, behavioral intentions and attitudes toward organizations (in this case sport teams) have been examined as representative dependent variables (e.g., Ahn, Suh, Lee, & Pederson, 2012; Botree, 2010; Kang & Yang, 2010; Ki & Hon, 2007b; Kim & Chan-
Olmsted, 2005; Kim, Trail, & Magnusen, 2013; MacKenzie, Lutz, & Belch, 1986; Madrigal, 2001; Lee & Ferreira, 2013; Park & Dittmore, 2014). Interactive and long-term relationships between sport organizations and their fans might explain and predict behaviors and attitudes. Some scholars have investigated attitudes and intentions as related to each other in the same processing lines, while other scholars considered them separately.

**Attitudes.** According to Fishbein and Ajzen (1974), attitude is “a predisposition on [one’s] part to respond to the object in a consistently favorable or unfavorable manner” (p. 59). Attitudes toward objects are based on beliefs about the objects. Attitudes lead to behavioral intentions, and behavioral intentions lead to actual behaviors (Ahn et al., 2012; Fishbein & Ajzen, 1975; Madrigal, 2001).

Scholars in the early research into attitude such as Fishbein and Ajzen (1974, 1975) thought that beliefs construct attitudes, and attitudes simply predict behaviors because attitudes are stable and enduring (Mitchell & Olson, 1981). Later, however, scholars of the theory of planned behaviors argued that attitudes did not simply lead to behaviors (Ajzen, 2001). Ajzen introduced the concept of perceived behavioral control to accurately explain the relationship between behavioral intention and actual behaviors. The early version of this theory was called the theory of reasoned action. Ajzen later developed this theory into the theory of planned behaviors (1991). Figures 2 and 3 show how differently these two theories explain the relationships between attitudes, intentions, and behaviors. To be more specific, while the theory of reasoned action holds that attitudes and behaviors are always identical, the theory of planned behavior argues that attitudes do not always match actual behaviors (Ajzen, 1991). Ajzen explains that “perceived behavioral control” helps people evaluate how well they can execute
and control their behaviors. This perception explains external factors that individuals cannot control (Ajzen, 1991).

Figure 2. 1. A model of the theory of reasoned action (Fishbein & Ajzen, 1975)

Figure 2. 2. A model of the theory of planned behaviors (Ajzen, 1991)

Regarding the relationship between attitudes and behavioral intentions, some scholars argue that attitude should be measured with multiple dimensions such as cognitive, affective, and conative components to predict behaviors, while others insist that external factors other than
attitude influence behaviors such as “social norms, habits, other attitudes, personality characteristics, situational factors” (Fishbein & Ajzen, 1974, p. 60). For example, Ajzen (1991) indicated that “any single sample of behavior reflects not only the influence of a relevant general disposition, but also the influence of various other factors unique to the particular occasion, situation, and action being observed” (p. 180). Researchers aggregate various behaviors, occasions, and situations so they can study general attitudes and personality traits to predict general behaviors.

In previous studies on attitudes and intentions in team identification and organization-public relations, scholars did not fully apply both theories, planned behavior and reasoned action, but used fundamental concepts of attitudes and intentions. Among a good number of studies on attitudes and behavioral intentions, studies regarding team identification and organization-public relationships will be reviewed here.

**Context of OPR.** Scholars in public relations assume that measuring publics’ attitudes reflects the effectiveness of public relations practice (Ki & Hon, 2007b). Ki and Hon pointed out that “relationship perceptions are antecedents of supportive (and absence of unsupportive) feelings and behaviors among publics toward organizations” (p. 6). Borrowing insights from Mitchell and Olson (1981), Ki and Hon (2007b) and Ahn et al. (2012) explained attitude toward organizations as “an individual’s internal evaluation” (Mitchell & Olson, 1981, p. 318). This evaluation has a positive or negative direction (Madrigal, 2001) and may lead to consumers’ future behaviors including brand choice (Kim & Chan-Olmsted, 2005).

Scholars who study organization-public relationships mainly explain whether OPR dimensions affect attitudes and intentions and which dimensions influence them. First, based on the theoretical relationships among awareness, attitude, and behavioral intention, and the
influence of behavioral beliefs on OPR outcomes, Kang and Yang (2010) and Ki and Hon (2007b) found that OPR outcomes were positively correlated with attitude and behavioral intentions. In addition, Kim and Chan-Olmsted (2005) found that satisfaction among OPR dimensions was a significant predictor of attitude towards a brand, confirming previous findings by Ki and Hon that only the satisfaction dimension of OPR was a significant predictor of brand attitude. Researchers have also found that control mutuality increases the positive relationships between volunteers and non-profit organizations (Bortee, 2010). To be more specific, participants showed strong intention to volunteer according to the degree of their relationship with a non-profit organization (Bortee, 2010).

**Context of team identification.** In the sport management context, scholars have been interested in connecting team identification to attitudes toward specific teams or brands. The relationship between attitude and behavioral intentions such as purchase and attendance intentions is typically positive. For example, Ahn et al. (2012) examined how team identification moderates brand attitude and purchase intention when participants are confronted with changes in a given team’s logos, and they found that highly identified fans showed more negative feedback to changes to the teams’ products than less-identified fans, regardless of levels of changes. Madrigal (2001) found that team identification had a significant moderating effect between attitude and purchase intention of sponsor’s products. People who had a lower degree of positive attitude and higher degree of team identification showed more positive purchase intention than those who had lower team identification (Madrigal, 2001). Furthermore, “fans with high identification are more likely to possess positive attitudes toward team-related products (e.g., team licensed merchandises, team sponsored products), which consequently lead to positive behavioral intention to them” (Ahn et al., 2012, 14).
The purpose of this dissertation is to examine not only whether team identification and organization-public relations will be positively correlated with attitudes, but also which dimensions of team identification and OPR will be correlated with the attitudes. The following hypotheses and research questions are proposed:

H5: A person’s identification with a team will directly influence his/her attitudes towards the team.

H6: A person’s relationship with a team will directly influence his/her attitudes towards the team.

**Behavioral intentions.** Behavioral intention is “the intention to perform a particular behavior, a plan to put behavior into effect” (Perloff, 2003, p. 92). Scholars in public relations and sport management have frequently used behavioral intentions as dependent variables to predict future behaviors and have found that behavioral intention is an “immediate antecedent of actual behavior” (Kang & Yang, 2010, p. 484). In this sense, behavioral intentions can be used to predict actual behaviors in empirical studies (Ki & Hon, 2007b). Because relationship management including sport management does not concentrate on the direct financial benefits of management practice but on intangible support from publics, behavioral intention is an appropriate variable to determine the effectiveness of management practice (Kim & Chan-Olmsted, 2005).

**Context of team identification.** “Sport team identification has been one of the major psychological orientations with which sport scholars and marketers explain and predict sport consumers’ behaviors in various situations” (Kwon & Armstrong, 2002, p. 154). Scholars have explained that highly identified sport fans with specific favorite teams are more likely to consume team-related activities, for example, attending games, purchasing team-related
products, and even purchasing sponsored products (Wann, 2006; Wann & Branscombe, 1990; Kim, Trail, & Magnusen, 2013).

Wann et al. (2006) explained that team identification is the most important factor influencing attendance. Scholars in sport management and sport communication have focused on attendance at games and stadiums according to team identification and team attachments (for example, Matsuoka et al., 2003; Wakefield, 1995; Fisher & Wakefield, 1998, and Murrell & Dietz, 1992). Wakefield found that team identification, reference group and community acceptance, and perceived ticket value were influential factors of intentions to attend future games among various environmental factors such as perceived quality of stadium, perceived quality of food service, overall satisfaction with stadium, perceived ticket value, situational involvement with the game, enduring involvement with baseball, perceived reference group acceptance, perceived community acceptance, and identification with team. On the other hand, Matsuoka, Chelladurai, and Harada (2003) argued that team identification might have both a positive and negative influence on potential customers. This means that people who have lower team identification might not come to future games or “switch attendance to other teams irrespective of a team’s performance” (p. 246). In addition, Park and Dittmore (2014) presented direct and indirect correlations between social media consumption, team identification, word-of-mouth intention, and attendance intention. Team identification especially affected word-of-mouth intention and attendance intention.

Intention to purchase team-related products is another topic of interest in sport communication. For example, Lee and Ferreira (2013) found a mediating effect of team identification between purchase intention and attitudes toward cause-related products, and Fink, Trail, and Anderson (2002b) examined how gender differences and team differences effect
present and future behaviors of spectators (for example, merchandise consumption, wearing of team paraphernalia, and attendance), as well as environmental factors to attend the games (for example, ticket pricing, friends, family, and promotions, Wann, 2006).

**Context of OPR.** Studies on organization-public relationships as well as studies on team identification pay attention to behavioral intentions. Unlike the marketing arena, scholars in public relations pay less attention to financial benefits from public relations practices. In other words, rather than actual behaviors such as purchases, intention to purchase is a suitable topic for studies on organization-public relationships because public relations scholars assume that behavioral intentions might anticipate behaviors of key publics based on their relationships with organizations. Kim and Chan-Olmsted (2005) refer to purchase intention as “the consumers’ tendency to act towards an object”; it is “generally measured in terms of intention to buy” (p. 152). In terms of intentions and attitudes toward specific brands, previous studies show that attitudes toward specific brands are positively related to purchase intentions (MacKenzie, Lutz, & Belch, 1986). Also, there are positive relationships between behavioral intentions toward non-profit organizations (Kang & Yang, 2010) and purchase intention and attitude toward brands (Kim & Chan-Olmsted, 2005).

Based on the literature on team identification and organization-publics relationships, the following hypotheses about the correlations and relationships of 1) team identification and 2) OPR with attendance intention and purchase intention of team-related products are presented.

H7a: A person’s attitudes towards his/her team will influence his/her purchase intentions.

H7b: A person’s attitudes towards his/her team will influence his/her attendance intentions to support his/her team.
Gender and Fandom

As female sports spectatorship is increasing, the relationship of gender to team identification and its consequences is a popular topic in sports communication (for example, Aiken & Koch, 2009; Dhurup, 2012; Fink, Trail, & Anderson, 2002b; Mehus & Kolstad, 2011; Ridinger & Funk, 2006; Robinson & Trail, 2005; Spinda, 2011; Wann, Schrader, & Wilson, 1999; Ware & Kowalski, 2012). Previous studies have examined the difference between gender of fans and spectators even though there were various results on predominance of specific gender. Wann et al. (2006) explained that males and females showed different patterns of sport fan socialization; males were most influenced by their peers and females by their family members.

Nevertheless, in terms of degree of team identification, male sport fans more strongly identify themselves with their favorite team than female fans (Mehus & Kolstad, 2011), and when their team wins, male sports fans show a higher degree of BIRGing than female fans (Dhurup, 2012), though there does not seem to be a difference in CORFing. Ware and Kowalski (2012) indicated that there was no significant difference between male and female sport fans when they are highly involved. However, Spinda (2011) showed the opposite result. Specifically, in terms of BIRGing, female NFL fans showed more communication activities such as seeking mediated enjoyment by watching highlights and news stories, contacting others via the Internet or by phone, spending time with others, and displaying team logos and emblems.

Gender differences work in sport spectatorship in other ways besides degree of team identification. For example, Fink et al. (2002b) examined how not only gender differences of sport fans, but also different gender sports affect current and future behaviors of sport-related consumption such as attending games and purchasing products. Aiken and Koch (2009)
investigated team preference based on various factors such as winning percentage, presence of star players, geographic association, social affiliation, and team history. They found that women are more focused on social affiliations, while men pay attention to star players and winning percentages. Robinson and Trail (2005) studied whether gender difference would affect motives to attend collegiate sports games. Trail, Anderson, and Fink (2002) found that gender differences affect satisfaction and perception of sport venue factors such as cleanliness, concessions, and restrooms; specifically, women were more likely to think that sport venue facilities were important than men did, while women were more satisfied with their experience at games than men were.

Meanwhile, scholars suggested that there is a gender difference in motives for watching sports. For example, women consider their friends and family members as a reason to watch sport on television more than men (Grantz & Wenner, 1991). In some studies, female spectators showed higher team involvement such as university pride, affordability, supporting sport, and socialization compared to male spectators (Ridinger & Funk, 2006). This finding conflicts with other studies in which female fans indicated a lower degree of feelings after games than male fans (for example, Wann, Schrader, & Wilson, 1999).

More importantly, Wann (1995) found that men found aesthetics, eustress (beneficial stress), and self-esteem were reasons to watch sports, while women said they would attend or watch games in order to spend time with their family. Even though previous research had different results for the question which gender shows higher involvement with their favorite teams and related activities, the study by Wann (1995) provides the idea that men focused on self-esteem more than women did. Therefore, the current study suggests the following research question as part of testing the model that is suggested.
RQ2: Does gender affect the relationships among the variables in the proposed model?

**Proposed Model and Hypotheses**

Based on the review of the literature, the current study proposes the following model as shown in Figure 2.3. The model contains 1) what personal aspects of antecedents affect team identification and organization-public relationships, 2) how team identification and organization-public relationships influence attitude toward the favorite team, 3) how attitudes towards the team affect behavioral intentions, 4) how team identification and organization-public relationship are related, and 5) how gender work as a moderator in the mode.

![Figure 2.3. The proposed model](image-url)
CHAPTER 3

METHODOLOGY

The purpose of this study is to investigate the direct influences among antecedent variables (duration of being a fan and sport media consumption), team identification, organization-public relationships, attitudes towards the team, behavioral intentions including attendance and purchase intentions, and gender as a moderator as well as to suggest a possible model including these variables.

Hypotheses and Research Questions

Based on the existing literature about team identification, organization-public relationship, and attitudes and behavioral intentions, the current study examined the following hypotheses and research questions:

H1: The duration of a person’s fandom towards a team will directly influence his/her identification with the team.

H2: The amount of media a person consumes about his/her team will directly influence his/her identification with the team.

RQ1: What dimensions of the outcomes of an organization-public relationship correlate with the dimensions of team identification?

H3: The duration of a person’s fandom towards a team will directly influence his/her relationship with the team.

H4: The amount of media a person consumes about his/her team will directly influence his/her relationship with the team.
H5: A person’s identification with a team will directly influence his/her attitudes towards the team.

H6: A person’s relationship with a team will directly influence his/her attitudes towards the team.

H7a: A person’s attitudes towards his/her team will influence his/her (a) purchase intentions.

H7b: A person’s attitudes towards his/her team will influence his/her attendance intentions to support his/her team.

RQ2: Does gender affect the relationships among the variables in the proposed model?

Survey Procedure and Sampling

The current study used the survey method to examine the relationships among team identification, organization-public relationships, antecedents including duration of being a fan and sport media consumption, gender as a moderator, and dependent variables such as attitudes and behavioral intentions (attendance and purchase team-related products). The survey method is useful for descriptive, explanatory, and exploratory purposes in studies that have individuals as the units of analysis (Babbie, 2012). Survey research is also probably the best method available to collect original data for describing a population too large to observe directly. Careful probability sampling provides a group of respondents whose characteristics may be taken to reflect those of the larger population, and carefully constructed standardized questionnaires provide data in the same form from all respondents. Surveys are also excellent vehicles for measuring attitudes and orientations in a large population (Babbie, 2012).

The current study focuses on sport fans, specifically fans of professional football teams. Mechanical Turk (M-Turk), an online survey system administered by Amazon.com, was used as
an online survey platform. M-Turks, which is an online crowd-sourcing market, has become a popular way to collect data (Steelman, Hammer, & Limayem, 2014), and many researchers in communications as well as marketing use it. For example, Li (2016) pointed out that M-Turks is widely used for behavioral research, and Xu and Wu (2015) maintained a growing number of social science studies have confirmed validities of studies that used M-Turks. In the process of recruiting participants in the M-Turk system, instruction about the survey was provided.

Appropriate advertising for a web survey was posted on the website of Amazon Mechanical Turk to recruit fans of National Football League (NFL) teams, specifically those who enjoy watching or attending professional American-style football games. According to M-Turk’s policy and procedure, compensation ($0.50) was given to the participants after completing the survey. The survey procedure took no longer than about 20 minutes, and the questionnaire contained single-answer questions and measurements for each variable.

To identify technical and methodological mistakes and errors of the research in advance, a pre-test was conducted, and it collected 54 samples. The results of the pre-test confirmed there was no methodological error, so the researcher conducted the main test using the same process as the pre-test. A total of 702 respondents answered the questionnaire in the main test. Through a process to clear the dataset, some cases were eliminated. For example, some respondents did not give agreement to participate in the survey, even though they answered the questions, and some participants answered “no” to the question about whether they were fans of any football team in the NFL. After eliminating the irrelevant surveys, a total of 673 samples were used for analysis.

Measures

Before seeing the measures of team identification, organization-public relationship, and attitudes and behavioral intentions, respondents were asked whether they were a fan of sports
and specifically the National Football League (NFL). Football is the most popular professional sport in the United States (Rovell, 2014), so the NFL is a reasonable context in which to examine general relationships between team identification, OPR outcomes, and attitudes and behavioral intentions of general sports fans. Many scholars who studied team identification have focused on fans of a specific team, but I wanted to explore the relationships between variables that have not been examined yet. Therefore, rather than one specific relational situation surrounding one team and their fans, generalized relational situations between a specific fan and his or her favorite team would give more abundant discussion.

Respondents were also asked questions including which NFL team was their favorite team, reasons for being a fan of the team, and how long they have been fans, followed by the scales about sport media consumption, team identification, organization-public relationships, attitudes, and behavioral intentions.

**Sport media consumption.** To measure how sport fans consume content regarding their favorite teams, the questionnaire asked about various activities such as attending and watching games and discussing with other fans as well as participating in social media activities. Seven items modified from James (2001) were listed: watching television, reading about the team, discussing with others, visiting official websites, and following social media (one item each for Facebook, Twitter, and Instagram). Participants were asked whether they use each media and follow-up questions asked specific frequencies.
Table 3.1. Sport Media Consumption (modified from James, 2001)

<table>
<thead>
<tr>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you watch your favorite team’s games on television?</td>
</tr>
<tr>
<td>If yes, how many times did you watch the games in the regular season last year (16 games per season) on television?</td>
</tr>
<tr>
<td>Do you read about your favorite team?</td>
</tr>
<tr>
<td>If yes, on average, how many hours per day do you read about your favorite team, in print media or online?</td>
</tr>
<tr>
<td>I enjoy discussing my favorite team with others. (5-point Likert scale)</td>
</tr>
<tr>
<td>Do you visit the official website of your favorite team?</td>
</tr>
<tr>
<td>If yes, on average, how many times do you visit the website per day?</td>
</tr>
<tr>
<td>Do you follow your favorite team via Facebook?</td>
</tr>
<tr>
<td>If yes, how many times do you visit the Facebook page of the team per day?</td>
</tr>
<tr>
<td>Do you follow your favorite team via Twitter?</td>
</tr>
<tr>
<td>If yes, how often do you check the Twitter feed per day?</td>
</tr>
<tr>
<td>Do you follow your favorite team via Instagram?</td>
</tr>
<tr>
<td>If yes, how often do you view the Instagram of the team per day?</td>
</tr>
</tbody>
</table>

**Team identification (TEAM*ID scale).** The short version of the Team*ID scale (Lock et al., 2014), which is based on Heere and James’ (2007b) scale, was used to determine participants’ level of identification with their favorite teams. Heere and James used a multi-dimensional team identification scale based on social identity theory and found six dimensions of team identification: public evaluation, private evaluation, interconnection of self, sense of interdependence, behavioral involvement, and cognitive awareness. Lock et al. modified that scale to 18 items. Even though many previous studies on team identification used Wann and Branscombe’s (1993) Sport Spectator Identification Scale (SSIS), this study used the Team*ID scale because it represents multiple dimensions including involvement, interconnection, and interdependence. It was expected that the Team*ID scale would be more helpful in finding connectivity with OPR dimensions. Questions on the scale are answered on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree).
Table 3.2. Short Version of TEAM*ID Scale (Lock et al., 2014)

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Behavioral involvement</strong></td>
<td>I participate in activities supporting [my favorite team].</td>
</tr>
<tr>
<td></td>
<td>I am actively involved in activities related to [my favorite team].</td>
</tr>
<tr>
<td></td>
<td>I participate in activities with other fans of [my favorite team].</td>
</tr>
<tr>
<td><strong>Cognitive awareness</strong></td>
<td>I am aware of the tradition and history of [my favorite team].</td>
</tr>
<tr>
<td></td>
<td>I know the ins and outs of [my favorite team].</td>
</tr>
<tr>
<td></td>
<td>I have knowledge of the successes and failures of [my favorite team].</td>
</tr>
<tr>
<td><strong>Interconnection of self (affect)</strong></td>
<td>When someone criticizes [my favorite team], it feels like a personal insult.</td>
</tr>
<tr>
<td></td>
<td>Being associated with [my favorite team] is an important part of my self-image.</td>
</tr>
<tr>
<td></td>
<td>When someone compliments [my favorite team], it feels like a personal compliment.</td>
</tr>
<tr>
<td><strong>Sense of interdependence</strong></td>
<td>What happens to [my favorite team] will influence what happens in my life.</td>
</tr>
<tr>
<td></td>
<td>Changes that impact [my favorite team] will have an impact on my life.</td>
</tr>
<tr>
<td></td>
<td>What happens to [my favorite team] will have an impact on my life.</td>
</tr>
<tr>
<td><strong>Private evaluation</strong></td>
<td>I feel good about being a fan of [my favorite team].</td>
</tr>
<tr>
<td></td>
<td>I am glad to be a fan of [my favorite team].</td>
</tr>
<tr>
<td></td>
<td>I am proud to think of myself as a fan of [my favorite team].</td>
</tr>
<tr>
<td><strong>Public evaluation</strong></td>
<td>Overall, [my favorite team] is viewed positively by others.</td>
</tr>
<tr>
<td></td>
<td>In general, others respect [my favorite team].</td>
</tr>
<tr>
<td></td>
<td>Overall, people hold a favorable opinion of [my favorite team].</td>
</tr>
</tbody>
</table>

**Organization-public relationships.** To measure organization-public relationship, assessment items from Ki and Brown (2013) and Huang (2001a) were used. These items were modified and shortened from Hon and Grunig (1999). The scale includes a total of 16 items that are categorized in four dimensions of control mutuality, satisfaction, trust, and commitment. Each dimension has four items. All items are measured with a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree).
Table 3. 3. Organization-Public Relationships Measurement

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trust</strong></td>
<td>Members of the organization are truthful with me.</td>
</tr>
<tr>
<td></td>
<td>The organization treats me fairly and justly, compared to other organizations.</td>
</tr>
<tr>
<td></td>
<td>Generally speaking, I do not trust the organization.*</td>
</tr>
<tr>
<td></td>
<td>The organization keeps its promises.</td>
</tr>
<tr>
<td><strong>Control mutuality</strong></td>
<td>Generally speaking, the organization and I both are satisfied with the decision-making process.</td>
</tr>
<tr>
<td></td>
<td>In most cases, during decision making, both the organization and I are equal influence.</td>
</tr>
<tr>
<td></td>
<td>Both the organization and we agree on what we can expect from one another.</td>
</tr>
<tr>
<td></td>
<td>Both the organization and we have mutual beneficial relationships.</td>
</tr>
<tr>
<td><strong>Relationship satisfaction</strong></td>
<td>Generally speaking, organization members meet our needs.</td>
</tr>
<tr>
<td></td>
<td>Generally speaking, our relationship with the organization has problems.*</td>
</tr>
<tr>
<td></td>
<td>In general, we are satisfied with the relationship with the organization.</td>
</tr>
<tr>
<td></td>
<td>Our relationship with the organization is good.</td>
</tr>
<tr>
<td><strong>Relationship commitment</strong></td>
<td>I do not wish to continue a relationship with the organization.*</td>
</tr>
<tr>
<td></td>
<td>I believe that it is worthwhile to try to maintain the relationship with the organization.</td>
</tr>
<tr>
<td></td>
<td>I wish to keep a long-lasting relationship with the organization.</td>
</tr>
<tr>
<td></td>
<td>I wish I had never entered into the relationship with the organization.*</td>
</tr>
</tbody>
</table>

**Note:** * indicates a reverse-scored item.

**Attitudes.** Seven semantic items measured attitudes toward the team. These items were modified from previous studies on attitudes toward brand and sport teams (for example, Kim & Chan-Olmsted, 2005; Lee & Ferreira, 2012). There are 7 points between the anchor words, as described in Table 3.4.

Table 3. 4. Attitude towards the Team (Kim & Chan-Olmsted, 2005; Lee & Ferreira, 2012)

<table>
<thead>
<tr>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>My favorite team is ____________. (Unfavorable – favorable)</td>
</tr>
<tr>
<td>My favorite team is ____________. (Unlikeable – likeable)</td>
</tr>
<tr>
<td>My favorite team is ____________. (Negative – positive)</td>
</tr>
<tr>
<td>My favorite team is ____________. (Bad – good)</td>
</tr>
<tr>
<td>My favorite team is ____________. (Harmful – beneficial)</td>
</tr>
<tr>
<td>My favorite team is ____________. (Unattractive – attractive)</td>
</tr>
<tr>
<td>My favorite team’s performance is ____________. (Poor – excellent)</td>
</tr>
</tbody>
</table>
Purchase intention of team-related products. Grewal et al.’s (1998) measure was modified and used to examine the purchase intention of sport fans. This scale has been used in many previous studies in the context of sport communication (e.g., Lee & Ferreira, 2012 and Kwon et al., 2007). The measurement includes three items: 1) I would purchase products of the favorite team, 2) I would consider buying at this price, and 3) The possibility that I would consider buying is high. Previous studies using the scale have showed high internal consistency. Items are ranked on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree).

Attendance intention. To measure attendance intention, participants were asked whether they would attend future games (Fink et al., 2002b; Matsuoka et al., 2003) with a single item ranked on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree).

Reliability and Validity

Reliability is a matter of dependability or confidence that researchers will get the same result using the same measurement again and again. The survey method has strong reliability compared to other research methods (Babbie, 2012). By presenting all subjects with a standardized questionnaire, researchers can eliminate unreliability in observations. Careful wording of the questions can also significantly reduce the subject’s own unreliability. Cronbach’s alpha was used to examine the reliability of the measurements used in this study. According to George and Mallery (2003), a Cronbach’s alpha of .9 and higher is considered excellent, .8 and higher is considered good, .7 and higher is considered acceptable, .6 and higher is considered questionable, .5 and higher is considered poor and a Cronbach’s alpha less than .5 is considered unacceptable.

Validity means that the measures used in the research accurately indicate what researchers want to measure (Babbie, 2012). External validity explains how well variables
represent real world phenomena, while internal validity refers to how accurately independent variables represent the effects of the experiment in an empirical study. While researchers conduct their research based upon appropriate operational definitions based on previous research, many kinds of negative factors might coincidentally affect the dependent variables. Therefore, researchers should control for these negative factors.

While a survey method has strong (external) reliability, it has comparatively weak validity because of its artificiality (Babbie, 2012). To be more specific, in the real world, a person’s thinking and opinions on a specific issue are not expressed in the form of scales, such as strongly agreeing, agreeing, disagreeing, or strongly disagreeing with a specific statement. Researchers can make questionnaires to indicate standardized answers based on what they assume about the questions and what previous studies revealed. At the same time, many scholars question the assumption that a “real” definition of what’s being measured exists somewhere. However, weak validity can be overcome with clear wording on the questionnaire. Using well-established measurements and questionnaires is a good way to improve validity, along with pre-testing and correcting questionnaires based on the results of pre-tests.

In addition to internal and external validities, there are various concepts of validity: face validity, criterion-related validity (predictive validity), construct validity, and content validity (Babbie, 2012). Face validity (logical validity) refers to simple and intuitive validity. Researchers and subjects can measure face validity with superficial observations. For instance, if a researcher asks a question about how often a participant watches a specific television show, then subjects can notice the question is about favorability of the show.

Criterion-related validity, which is also called predictive validity, refers to the degree to which the causal effects between individual variables and dependent variables are predicted
based on external criteria. External criteria are indicators that predict causal effects. For example, a communication scholar can conduct a study on whether heavy viewers of violent movies engage in more violent activities after watching movies than others, following previous research that found that watching violent television program affects the violent activities of viewers. In this example, the previous research is a reference for the current research.

Construct validity means the degree of validity based on the rational relationships among conducted variables. Researchers design their research with appropriate variables through operationalization, and those variables can be used to examine other variables. Construct validity is originally abstract, so researchers conduct measurable variables to examine construct validity. For example, researchers might use an IQ test to measure intelligence.

Finally, content validity measures whether variables appropriately represent the concept researchers want to measure. In other words, it means “how much a measure covers the range of concept” (Babbie, 2013, p. 152).

Table 3.5. and Table 3.6. show the results of inter-item reliability tests of the pretest and the main test. Most of the dimensions were good or excellent, and a few dimensions (trust, relationship satisfaction, and relationship commitment in organization-public relationship) were acceptable.
Table 3.5. Inter-item reliability of the pretest

<table>
<thead>
<tr>
<th>Dimension and Items</th>
<th>Reliability</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Identification (18 items)</td>
<td>.92</td>
<td>83.26</td>
<td>19.135</td>
</tr>
<tr>
<td>Behavioral involvement (3 items)</td>
<td>.88</td>
<td>12.91</td>
<td>4.639</td>
</tr>
<tr>
<td>Cognitive awareness (3 items)</td>
<td>.93</td>
<td>16.61</td>
<td>4.086</td>
</tr>
<tr>
<td>Interconnection of self (affect) (3 items)</td>
<td>.87</td>
<td>12.44</td>
<td>4.550</td>
</tr>
<tr>
<td>Sense of interdependence (3 items)</td>
<td>.94</td>
<td>10.78</td>
<td>5.046</td>
</tr>
<tr>
<td>Private evaluation (3 items)</td>
<td>.95</td>
<td>16.61</td>
<td>4.578</td>
</tr>
<tr>
<td>Public evaluation (3 items)</td>
<td>.93</td>
<td>14.09</td>
<td>4.769</td>
</tr>
<tr>
<td>Organization-Public Relations (16 items)</td>
<td>.92</td>
<td>78.11</td>
<td>15.431</td>
</tr>
<tr>
<td>Trust (4 items)</td>
<td>.73</td>
<td>20.48</td>
<td>4.120</td>
</tr>
<tr>
<td>Control Mutuality (4 items)</td>
<td>.84</td>
<td>17.98</td>
<td>4.977</td>
</tr>
<tr>
<td>Relationship Satisfaction (4 items)</td>
<td>.80</td>
<td>18.43</td>
<td>4.402</td>
</tr>
<tr>
<td>Relationship Commitment (4 items)</td>
<td>.82</td>
<td>21.22</td>
<td>4.454</td>
</tr>
<tr>
<td>Attitudes (7 items)</td>
<td>.95</td>
<td>40.57</td>
<td>8.449</td>
</tr>
<tr>
<td>Purchase Intentions (3 items)</td>
<td>.88</td>
<td>16.15</td>
<td>3.992</td>
</tr>
</tbody>
</table>

Table 3.6. Inter-item reliability of the main test

<table>
<thead>
<tr>
<th>Dimension and Items</th>
<th>Reliability</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Identification (18 items)</td>
<td>.91</td>
<td>81.42</td>
<td>17.728</td>
</tr>
<tr>
<td>Behavioral involvement (3 items)</td>
<td>.90</td>
<td>12.45</td>
<td>4.791</td>
</tr>
<tr>
<td>Cognitive awareness (3 items)</td>
<td>.86</td>
<td>16.29</td>
<td>3.397</td>
</tr>
<tr>
<td>Interconnection of self (affect) (3 items)</td>
<td>.88</td>
<td>12.16</td>
<td>4.859</td>
</tr>
<tr>
<td>Sense of interdependence (3 items)</td>
<td>.96</td>
<td>9.24</td>
<td>5.113</td>
</tr>
<tr>
<td>Private evaluation (3 items)</td>
<td>.92</td>
<td>17.30</td>
<td>3.209</td>
</tr>
<tr>
<td>Public evaluation (3 items)</td>
<td>.95</td>
<td>13.98</td>
<td>4.332</td>
</tr>
<tr>
<td>Organization-Public Relations (16 items)</td>
<td>.88</td>
<td>78.62</td>
<td>12.343</td>
</tr>
<tr>
<td>Trust (4 items)</td>
<td>.71</td>
<td>19.60</td>
<td>3.469</td>
</tr>
<tr>
<td>Control Mutuality (4 items)</td>
<td>.83</td>
<td>16.73</td>
<td>4.651</td>
</tr>
<tr>
<td>Relationship Satisfaction (4 items)</td>
<td>.74</td>
<td>19.64</td>
<td>3.788</td>
</tr>
<tr>
<td>Relationship Commitment (4 items)</td>
<td>.76</td>
<td>22.64</td>
<td>4.064</td>
</tr>
<tr>
<td>Attitudes (7 items)</td>
<td>.93</td>
<td>40.60</td>
<td>7.414</td>
</tr>
<tr>
<td>Purchase Intentions (3 items)</td>
<td>.89</td>
<td>15.52</td>
<td>4.286</td>
</tr>
</tbody>
</table>
**Statistical Analyses**

Cronbach’s alpha was used to confirm that all measurements in this study (team identification, organization-public relationships, attitudes, and behavioral intentions) were reliable. To ensure the construct validity of the measurements of team identification and organization-public relationships, Cronbach’s alpha tests were conducted for all dimensions (six dimensions of team identification and four dimensions of organization-public relationships). Because the two measurements of team identification and organization-public relationships have been used in previous studies many times and their reliability and validity have been shown (for example, Huang, 2001a; Ki & Brown, 2013; Lock et al., 2014), the current study confirmed the validity with Cronbach’s alpha tests instead of exploratory factor analysis (EFA).

In order to examine hypotheses 1 through 7 and the proposed model, a path analysis in structural equation modeling (SEM) was used. According to Byrne (2001), “structural equation modeling (SEM) is a statistical methodology that takes a confirmatory (i.e., hypothesis-testing) approach to the analysis of a structural theory bearing on some phenomenon” (p. 3). Structural equation modeling provides two important aspects: first, it shows causal relationships by presenting a series of structural equations (for example, regression) between variables, and second, it pictorially describes a model for a clearer conceptualization of a theory (Byrne, 2001). “Given the importance of establishing relationships among theoretical constructs, structural equation models have become widely used in the social and behavioral sciences” (Schumacker & Lomax, 2004, p. 68). A path analysis is a type of structural equation modeling that examines causal relationships (direct and indirect effects) between observed variables. This study investigates the relationships among duration of being a fan, sport media consumption, team identification, organization-public relationships, attitudes toward a team, attendance intention,
purchase intention of team-related products, and gender. AMOS version 24.0 was used to analyze the proposed model and the relationships among variables in the model, and SPSS version 20.0 was used to analyze descriptive statistics. In addition to investigating the hypotheses, the path analysis also answered research question 2 about the role of gender as a moderator in the model. Therefore, the path diagram contained the test for the differences between gender groups as well.

Confirmatory factor analyses (CFA) and correlation were used to answer research question 1. This is an exploratory study to seek possible relationships among dimensions of team identification and organization-public relationships, and measurements have been already confirmed their dimensions in various previous studies. Possible correlations among each dimension of team identification and organization-public relationships were investigated with confirmatory factor analysis and correlation tests using AMOS version 24.0.

Table 3.7. shows a summary of the statistical analysis methods used to address each hypothesis and research question.
### Hypotheses and Research Questions

<table>
<thead>
<tr>
<th>Hypotheses and Research Questions</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: The duration of a person’s fandom towards a team will directly influence his/her identification with the team.</td>
<td>Path analysis</td>
</tr>
<tr>
<td>H2: The amount of media a person consumes about his/her team will directly influence his/her identification with the team.</td>
<td>Path analysis</td>
</tr>
<tr>
<td>RQ1: What dimensions of the outcomes of an organization-public relationship correlate with the dimensions of team identification?</td>
<td>CFA and Correlation</td>
</tr>
<tr>
<td>H3: The duration of a person’s fandom towards a team will directly influence his/her relationship with the team.</td>
<td>Path analysis</td>
</tr>
<tr>
<td>H4: The amount of media a person consumes about his/her team will directly influence his/her relationship with the team.</td>
<td>Path analysis</td>
</tr>
<tr>
<td>H5: A person’s identification with a team will directly influence his/her attitudes towards the team.</td>
<td>Path analysis</td>
</tr>
<tr>
<td>H6: A person’s relationship with a team will directly influence his/her attitudes towards the team.</td>
<td>Path analysis</td>
</tr>
<tr>
<td>H7a: A person’s attitudes towards their team will influence his/her (a) purchase intentions.</td>
<td>Path analysis</td>
</tr>
<tr>
<td>H7b: A person’s attitudes towards their team will influence his/her attendance intentions to support his/her team.</td>
<td>Path analysis</td>
</tr>
<tr>
<td>RQ2: Does gender affect the relationships among the variables in the proposed model?</td>
<td>Multi-group path analysis</td>
</tr>
</tbody>
</table>
CHAPTER 4

RESULTS

Descriptive Statistics

**Respondents.** As described in Chapter 3, respondents were recruited using Amazon Mechanical Turk (M-Turk). A total of 702 participants answered the questionnaire in the main test. After clearing the dataset of unusable responses, a total of 673 samples were used in the analyses.

There were more male respondents \((n = 412, 61.2\%)\) than female respondents \((n = 261, 38.8\%)\). The mean age of respondents was 35.47 years old \((SD = 10.910)\), with 20s the most frequent age group \((n = 267, 39.7\%)\) and 30s the second-most frequent group \((n = 211, 31.4\%)\). In terms of household income, more than 40% of respondents answered $35,000 to $74,999 \((n = 137, 20.4\%; n = 145, 21.5\%)\). Almost all respondents had graduated from or were in college, so respondents who had Bachelor’s degree were most frequent \((n = 267, 39.7\%)\). Finally, respondents were asked how far their favorite teams playing from their residence; 34.8% of respondents \((n = 234)\) answered less than 100 miles away, while 20.8% answered more than 1001 miles. A summary of the categorical demographic information of the respondents is provided in the Table 4.1.
Table 4.1. Categorical demographic information of the respondents

<table>
<thead>
<tr>
<th>Variable Categories</th>
<th>Total Sample Size (N = 673)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency (n)</td>
</tr>
</tbody>
</table>

**Gender**
- Male*: 412 (61.2)
- Female: 261 (38.8)

**Age**
- Under 20: 10 (1.5)
- 21-30*: 267 (39.7)
- 31-40: 211 (31.4)
- 41-50: 105 (15.6)
- 51-60: 60 (8.9)
- Over 61: 20 (3.0)

**Income**
- Less than $9,999: 28 (4.2)
- $10,000 to $24,999: 79 (11.7)
- $25,000 - $34,999: 96 (14.3)
- $35,000 - $49,999: 137 (20.4)
- $50,000 - $74,999*: 145 (21.5)
- $75,000 - $99,999: 94 (14.0)
- $100,000 - $149,999: 72 (10.7)
- More than $150,000: 22 (3.3)

**Education**
- Some high school, no diploma: 4 (.6)
- High school graduate, diploma or the equivalent: 46 (6.8)
- Some college: 181 (26.9)
- Completed Associate degree: 79 (11.7)
- Completed Bachelor's degree*: 267 (39.7)
- Postgraduate / Professional degree: 96 (14.3)

**Distance from the team**
- less than 100 miles away*: 234 (34.8)
- 101 to 300 miles: 128 (19.0)
- 301 to 500 miles: 54 (8.0)
- 501 to 1,000 miles: 116 (17.2)
- 1,001 miles or more away: 140 (20.8)

*Note. *top category
**N = 672, one sample is missing.

**Summary of variables.** Respondents were asked how long they had been fans of their favorite NFL teams. The mean duration of being a fan was 18 years (SD = 12.27). Fans watched
their favorite teams’ games on television on average 10.76 games out of 16 games in a single season \((SD = 4.69)\), read about the team in print and online media on average .73 hours a day \((SD = .67)\), and spent about $80 on merchandise related to the team in a year \((SD = 98.26)\).

Twitter was the most used media \((M = .63, SD = 2.10)\), and Instagram was the least used \((M = .30, SD = 1.30)\). These variables related to sport media consumption were calculated and standardized for path analysis later.

In addition, respondents were asked about team identification (18 items), organization-public relationships (16 items), attitudes toward the team (7 items), attendance intention (a single item), and purchase intention of team-related products (3 items). All variables were measured with 7-point scales, and measurements with multiple items were calculated and recoded into a single item each for the path analysis later. The mean score for team identification was 4.5234 \((SD = .98)\), organization-public relationships was 4.91 \((SD = .77)\), attitude toward the team was 5.80 \((SD = 1.06)\), attendance intention was 5.40 \((SD = 1.46)\), and purchase intention of team-related products was 5.17 \((SD = 1.43)\). Table 4.2 presents a summary of variables.

Table 4.2. A summary of variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Total Sample Size ((N = 673))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td>Duration</td>
<td>18.1992</td>
</tr>
<tr>
<td>Watching games on TV(^{a})</td>
<td>10.76</td>
</tr>
<tr>
<td>Reading about the team(^{b})</td>
<td>.7328</td>
</tr>
<tr>
<td>Purchasing merchandise(^{c})</td>
<td>79.4729</td>
</tr>
<tr>
<td>Facebook(^{d})</td>
<td>.4728</td>
</tr>
<tr>
<td>Twitter(^{e})</td>
<td>.6341</td>
</tr>
<tr>
<td>Instagram(^{f})</td>
<td>.2961</td>
</tr>
<tr>
<td>Team Identification</td>
<td>4.5234</td>
</tr>
<tr>
<td>OPR</td>
<td>4.9136</td>
</tr>
<tr>
<td>Attitude</td>
<td>5.7998</td>
</tr>
<tr>
<td>Attendance Intention</td>
<td>5.40</td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>5.1734</td>
</tr>
</tbody>
</table>
Note. a. How many times did you watch the games in regular seasons last year (16 games per season) on television?
b. On average, how many hours per day, do you spend reading about your favorite team, in print media or online?
c. On average in a year, how much do you spend on team-related merchandise?
d. How many times do you visit the Facebook page of the team per day?
e. How often do you check the team’s Twitter feed per day?
f. How often do you view the Instagram of the team per day?

Testing Hypotheses and Proposed Path Model

To examine the proposed hypotheses and research questions, the current study conducted a path analyses (a non-recursive model) using AMOS. All variables (duration of fandom, sport media consumption, team identification, organization-public relationships, attitudes, attendance intention, and purchase intention of team-related products) were included in the model. Among variables, sport media consumption, team identification, organization-public relationships, attitudes, and purchase intention of team-related products were measured with multiple statements, so all items in each measurement were calculated and reduced to one variable each. These reduced scales were used as observed variables rather than latent variables when running the path analysis to avoid creating an overly complicated model. Instead, observed variables in team identification (18 statements) and organization-public relationships (16 statements) were used in testing a confirmatory factor analysis and correlation to answer research question 1.

Model fit indexes. This study used various indexes of goodness-of-fit to ensure the tenability of the proposed model: $\chi^2$ and $\chi^2/df$, the goodness-of-fit index (GFI), the adjusted goodness-of-fit index (AGFI), root mean square error of approximation (RMSEA), root mean residual (RMR), the comparative fit index (CFI), Tucker-Lewis index (TLI), the normed fit index (NFI), and the incremental fit index (IFI). First, a chi-square test is the first index to ensure a model fit. According to Ki and Hon (2007), a chi-square value should be greater than .05 significantly for a good model fit. On the other hand, it is not enough to consider a single index
because of the well-known sensitivity of the chi-square test to sample size and violations of multivariate normality (Bagozzi & Yi, 1988, 2012; Schermelleh-Engel, Moosbrugger, & Mueller, 2003). Instead of results of a chi-square and probability test, scholars usually refer to the $\chi^2/df$ score to determine the goodness of the model. Generally, a good model fit needs the score of $\chi^2/df$ to be less than three (Byrne, 2001).

Second, the goodness-of-fit index (GFI) and the adjusted goodness-of-fit index (AGFI) need to be above .90 and close to 1.00 for a good model fit (i.e., a value of 1.00 means a perfect fit; Byrne, 2010; Hu & Bentler, 1999). GFI is an index of the amount of variance and covariance in a sample, and AGFI is an adjusted index for the degrees of freedom specified in the model (Byrne, 2010). According to Schermelleh-Engel et al. (2003), AGFI greater than .85 indicates an acceptable model fit.

Third, baseline comparisons include the commonly used normed fit index (NFI), Tucker-Lewis index (TLI), and comparative fit index (CFI). Similar to GFI and AGFI, these indexes should be over .90 and close to 1.00 to indicate a good model fit (Hu & Bentler, 1999). The incremental fit index (IFI) has the same guideline.

Finally, for indicating a good model fit, root mean square error of approximation (RMSEA) and root mean residual (RMR) should be less than .05 (Schermelle-Engel et al., 2003). However, for an acceptable fit, RMSEA might be greater than .05 and less than .08, and RMR needs to be greater than .05 and less than .10. In addition to the RMSEA, the $p$-value for the test of close fit (Pclose) should be greater than .05.

Goodness-of-fit results of the proposed path model and CFA/correlation model in this study are provided in Table 4.3.
Table 4.3. Goodness-of-fit indexes of the path model and CFA/Correlation model

<table>
<thead>
<tr>
<th>Goodness-of-Fit Index</th>
<th>The Path Model</th>
<th>CFA / Correlation Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2 (df)$</td>
<td>12.204 (15)$^*$</td>
<td>1710.529 (474)$^{**}$</td>
</tr>
<tr>
<td>$\chi^2/df &lt; 3$</td>
<td>.814</td>
<td>3.609</td>
</tr>
<tr>
<td>GFI (close to 1.00)</td>
<td>.997</td>
<td>.851</td>
</tr>
<tr>
<td>AGFI (close to 1.00)</td>
<td>.985</td>
<td>.813</td>
</tr>
<tr>
<td>RMSEA &lt;.06</td>
<td>.000$^{**}$</td>
<td>.062$^{**}$</td>
</tr>
<tr>
<td>RMR &lt;.09</td>
<td>.246</td>
<td>.177</td>
</tr>
<tr>
<td>TLI (close to 1.00)</td>
<td>1.004</td>
<td>.918</td>
</tr>
<tr>
<td>NFI &gt;.80</td>
<td>.996</td>
<td>.907</td>
</tr>
<tr>
<td>CFI &gt;.90</td>
<td>1.000</td>
<td>.930</td>
</tr>
<tr>
<td>IFI &gt;.90</td>
<td>1.001</td>
<td>.931</td>
</tr>
</tbody>
</table>

*Note.* * indicates that the probability value = .664
** indicates that the probability value = .000
*** indicates that the $p$ of close fit (Pclose) = .000

Model fit of the model. Based on the guidelines from previous studies, the current study determined a goodness-of-fit of a proposed model (see Table 4.3). First of all, $\chi^2 (df = 15, p > .05)$ was 12.204 and $\chi^2/df$ was .814. Therefore, the model has a good fit to the data. Other indexes support that the proposed model had almost perfect fit to the data. For example, GFI was .997, AGFI was .985, TLI was 1.004, and NFI was .996. CFI indicated 1.000, and IFI was 1.001. However, two following indicators RMSEA and RMR showed different results with other indices. For example, RMSEA was less than .08 (.000) to support a good fit of the model, but the value of Pclose was not significant (Pclose = .000). The RMR value did not fit the data (.246). Overall, the revised model can be determined as a good fit to the data.

According to Byrne (2001), SEM requires two assumptions: continuous scale of data and multivariate normal distribution; “one approach to handling the presence of multivariate non-normal data is to use a procedure known as the ‘bootstrap’” (p. 268). The bootstrap technique provides a re-sampling procedure under the assumption that the original sample represents the population (Byrne, 2010): “Multiple subsamples of the same size as the parent sample are then
drawn randomly, with replacement, from this population and provide the data for empirical investigation of the variability of parameter estimates and indexes of fit” (p. 268-269). Therefore, the current study conducted a bootstrapping procedure with 200 samples using the maximum likelihood estimates with bias-corrected 95% confidence intervals for each of the bootstrap estimates to test the path analysis for the proposed model. The bootstrap results indicate that the paths included in the model are significant.

Moreover, AMOS provides a function of the modification index, which is “the expected drop in overall chi-square value if the parameter were to be freely estimated in a subsequent run” (Byrne, 2001, p. 92). After identifying covariance relationships among possibly related error variables, there was no modification index to get rid of. No MI means that “all parameters representing variances (factors and measurement errors) were freely estimated” (Byrne, 2001, p. 92).

![Figure 4.1. The proposed path model](image)

**Summary of the results of the path model.** A path analysis in SEM was conducted using AMOS version 24.0 to test the given hypotheses and the proposed model (see Figure 4.1 and Table 4.4). As discussed above, the model satisfied the goodness of the fit to the data. In
addition, the proposed model was examined for significance. In addition to the model, the following hypotheses were also examined:

**Hypothesis 1.** The first hypothesis was whether duration of a person’s fandom towards a team would directly influence his/her identification with the team. As seen in Figure 4.1 and Table 4.4, there was a direct effect of time factor on a person’s identification with his or her favorite NFL team, although the effect was not large compared to other paths ($\beta = .08, p < .05$). Therefore, hypothesis 1 was supported.

**Hypothesis 2.** The second hypothesis was whether the amount of media a person consumes about his/her team would directly influence his/her identification with the team. The result of the path analysis show that sport media consumption directly affects a person’s identification with the team, and the effect was much greater than the other antecedent, the duration of a fandom towards a team ($\beta = .46, p < .001$). Hypothesis 2 was supported.

**Hypothesis 3.** The third hypothesis was about the influence of the duration of a person’s fandom towards a favorite NFL team on his/her perception of relationship with the team. The result of the path analysis indicates that there was no direct effect of duration on organization-public relationships ($\beta = .02, p > .05$). Hypothesis 3 was not supported.

**Hypothesis 4.** The fourth hypothesis asked whether the amount of media a person consumes about his/her team would directly influence his/her relationship with the team. The result of the path analysis shows that consumption of media about the favorite team affects the fan’s perception of relationship with the team ($\beta = .28, p < .001$). Hypothesis 4 was supported.

**Hypothesis 5.** The next hypothesis was about the effect of team identification on attitudes towards the favorite team. The result of the path analysis indicates that a NFL fan’s identification
with the favorite team directly influences his/her attitudes towards the team \((\beta = .15, p < .001)\). Hypothesis 5 was supported.

**Hypothesis 6.** This hypothesis was about the effect of organization-public relationships on attitudes towards the favorite team. The result of the path analysis indicates that a NFL fan’s relationship with his/her favorite team directly influences his/her attitudes towards the team. In addition, the effect of the organization-public relationship on attitude is greater than the effect of team identification \((\beta = .44, p < .001)\). Hypothesis 6 was supported.

**Hypothesis 7a.** Hypothesis 7a is that a person’s attitudes towards their team influence his/her purchase intentions of team-related products. The path analysis shows that a NFL fan’s attitudes towards his/her favorite team strong direct effect on purchase intention \((\beta = .86, p < .001)\). Hypothesis 7a was supported.

**Hypothesis 7b.** The final hypothesis of this study is that a person’s attitudes towards the favorite team influences his/her attendance intentions (H7b). The result of the path analysis shows that a NFL fan’s attitudes towards his or her favorite team directly affect attendance intention \((\beta = .18, p < .001)\). Hypothesis 7b was supported.

Table 4.4. Path Analysis of the Proposed Model

<table>
<thead>
<tr>
<th></th>
<th>Standardized Estimate ((\beta))</th>
<th>S.E.</th>
<th>C.R. ((t))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration → TeamID</td>
<td>.081</td>
<td>.003</td>
<td>2.550***</td>
</tr>
<tr>
<td>Duration → OPR</td>
<td>.017</td>
<td>.002</td>
<td>.476</td>
</tr>
<tr>
<td>SMC → TeamID</td>
<td>.458</td>
<td>.016</td>
<td>13.514***</td>
</tr>
<tr>
<td>SMC → OPR</td>
<td>.277</td>
<td>.014</td>
<td>7.479***</td>
</tr>
<tr>
<td>TeamID → Attitude</td>
<td>.148</td>
<td>.044</td>
<td>3.594***</td>
</tr>
<tr>
<td>OPR → Attitude</td>
<td>.439</td>
<td>.051</td>
<td>11.921***</td>
</tr>
<tr>
<td>Attitude → AttendanceIn</td>
<td>.186</td>
<td>.055</td>
<td>4.617***</td>
</tr>
<tr>
<td>Attitude → PurchaseIn</td>
<td>.854</td>
<td>.081</td>
<td>14.301***</td>
</tr>
</tbody>
</table>
Note. *** $p = .000$, * $p < .05$, TeamID = team identification, OPR = organization-public relationships, AttendanceIn = Attendance Intention, PurchaseIn = Purchase intention of team-related products, SMC = sport media consumption

**Research Questions**

After examining the given hypotheses, the current study explored two research questions. The first research question was about specified correlations among dimensions of team identification and organization-public relationship outcomes, and the second was about the role of gender as a moderator in the proposed model.

**Research Question 1.** To investigate which dimensions of organization-public relationships correlate with the dimensions of team identification, a confirmatory factor analysis (CFA) and correlation analysis were run using AMOS 24.0. Valid measurements were used from previous studies for organization-public relationship outcomes (Huang, 2001a; Ki & Brown, 2013) and team identification (Heere & James, 2007b; Lock et al., 2014). The already examined and confirmed dimensions of team identification (behavioral involvement, cognitive awareness, interconnection of self (affect), sense of interdependence, private evaluation, and public evaluation) and organization-public relationships (trust, control mutuality, relationship satisfaction, and relationship commitment) were used in the confirmatory factor and correlation analyses. The model is provided in Figure 4.2.
Note. TIDBI = behavioral involvement dimension of team identification, TIDCA = cognitive awareness dimension of team identification, TIDIS = interconnection of self (affect) dimension of team identification, TIDSI = sense of interdependence dimension of team identification, TIDPiE = private evaluation dimension of team identification, TIDPuE = public evaluation dimension of team identification, OPRT = trust dimension of organization-public relationship outcomes, OPRCM = control mutuality dimension of organization-public relationship outcomes, OPRRS = relationship satisfaction dimension of organization-public relationship outcomes, and OPRRC = relationship commitment dimension of organization-public relationship outcome. Refer to Table 4.5 for each item.
**Model fit.** Based on the guideline of Byrne (2001), the following error covariances among the observed items within the same subscale were allowed to correlate to modify the CFA model: e7-e9, e21-e22, e24-e25, e23-e24, e23-e25, e27-e30, e29-e30, and e31-e34. The current study determined a goodness-of-fit of a CFA and correlation model to the data.

The CFA model indicates overall a good fit to the data (see Table 4.3.). Even though the general guideline for $\chi^2/df$ to determine a good model fit is less than three, some scholars have suggested a chi square ratio of less than five is acceptable (Marsh & Hocevar, 1985; Park & Dittmore, 2014). In this study, the ratio of chi-square to degree of freedom was 3.609 (1710.529 $(df = 474), p = .000$). Therefore, the model has an acceptable fit to the data based on the criteria that a chi square ratio less than 5 is acceptable. Furthermore, the TLI, NFI, CFI, and IFI indexes show that the model is a good fit for the data. To be more specific, TLI was .918, NFI was .907, CFI was .930, and IFI was .931. RMSEA was less than .08 (.062), supporting an acceptable fit, but this test was not significant ($p = .000$; Hu & Bentler, 1988, 2012). In addition, GFI and AGFI both indicated an acceptable fit to the data (GFI = .851 and AGFI = .813). Overall, the CFA model can be determined to be a good fit to the data.

A bootstrapping procedure with 200 samples using the maximum likelihood estimates with bias-corrected 95% confidence intervals for each of the bootstrap estimates was conducted to test the CFA and correlation model, and it indicates that the paths included in the model are significant.

**CFA model.** Table 4.5 shows the result of the CFA model. Based on previous scholars such as Byrne (2001), standardized estimates above .50 are considered significant to explain the latent variables (factors) in interpreting a confirmatory factor analysis. All factor loadings were significant at $p = .000$, however, some standardized factors were lower than the cut-off: OPR3 in
the trust subscale was .277, OPR10 in the satisfaction subscale was .321, OPR13 in the relationship commitment subscale was .364, and OPR16 in the relationship commitment subscale was .399 (see Table 4.5 and Figure 4.2). It appeared that the reversed four items in the measurement of organization-public relationships loaded lower than other items, and it can be assumed that the respondents perceived these negative nuances of statements as different from the rest. This issue should be improved in future research.

Table 4.5. Standardized factor loading in the CFA model

<table>
<thead>
<tr>
<th>Team Identification – Behavioral Involvement</th>
<th>Standardized Regression Estimate (β)</th>
<th>S.E.</th>
<th>C.R. (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TID3 - I participate in activities with other fans of [my favorite team].</td>
<td>.757</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TID2 - I am actively involved in activities that relate to [my favorite team].</td>
<td>.929</td>
<td>.049</td>
<td>25.210</td>
</tr>
<tr>
<td>TID1 - I participate in activities supporting [my favorite team].</td>
<td>.907</td>
<td>.047</td>
<td>24.841</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Team Identification – Cognitive Awareness</th>
<th>Standardized Regression Estimate (β)</th>
<th>S.E.</th>
<th>C.R. (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TID6 - I have knowledge of the successes and failures of [my favorite team].</td>
<td>.774</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TID5 - I know the ins and outs of [my favorite team].</td>
<td>.869</td>
<td>.066</td>
<td>22.184</td>
</tr>
<tr>
<td>TID4 - I am aware of the tradition and history of [my favorite team].</td>
<td>.820</td>
<td>.056</td>
<td>21.351</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Team Identification – Interconnection of Self (Affect)</th>
<th>Standardized Regression Estimate (β)</th>
<th>S.E.</th>
<th>C.R. (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TID9 - When someone compliments [my favorite team], it feels like a personal compliment.</td>
<td>.812</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TID8 - Being associated with [my favorite team] is an important part of my self-image.</td>
<td>.875</td>
<td>.044</td>
<td>24.306</td>
</tr>
<tr>
<td>TID7 - When someone criticizes [my favorite team], it feels like a personal insult.</td>
<td>.745</td>
<td>.034</td>
<td>26.956</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Team Identification – Sense of Interdependence</th>
<th>Standardized Regression Estimate (β)</th>
<th>S.E.</th>
<th>C.R. (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TID12 - What happens to [my favorite team] will have an impact on my life.</td>
<td>.944</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TID11 - Changes that impact [my favorite team] will have an impact on my life.</td>
<td>.966</td>
<td>.019</td>
<td>55.082</td>
</tr>
<tr>
<td>TID10 - What happens to [my favorite team] will influence what happens in my life.</td>
<td>.925</td>
<td>.021</td>
<td>46.530</td>
</tr>
<tr>
<td>Team Identification – Private Evaluation</td>
<td>Standardized Regression Estimate (β)</td>
<td>S.E.</td>
<td>C.R. (t)</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>--------------------------------------</td>
<td>------</td>
<td>---------</td>
</tr>
<tr>
<td>TID15 - I am proud to think of myself as a fan of [my favorite team].</td>
<td>.882</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TID14 - I am glad to be a fan of [my favorite team].</td>
<td>.911</td>
<td>.026</td>
<td>33.956</td>
</tr>
<tr>
<td>TID13 - I feel good about being a fan of [my favorite team].</td>
<td>.894</td>
<td>.027</td>
<td>32.850</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Team Identification – Public Evaluation</th>
<th>Standardized Regression Estimate (β)</th>
<th>S.E.</th>
<th>C.R. (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TID18 - Overall, people hold a favorable opinion of [my favorite team].</td>
<td>.939</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TID17 - In general, others respect [my favorite team].</td>
<td>.939</td>
<td>.022</td>
<td>45.846</td>
</tr>
<tr>
<td>TID16 - Overall, [my favorite team] is viewed positively by others.</td>
<td>.907</td>
<td>.023</td>
<td>41.418</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Organization-Public Relationships – Trust</th>
<th>Standardized Regression Estimate (β)</th>
<th>S.E.</th>
<th>C.R. (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPR4 - The organization keeps its promises.</td>
<td>.808</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPR3 - Generally speaking, I do not trust the organization.*</td>
<td>.277</td>
<td>.066</td>
<td>6.856</td>
</tr>
<tr>
<td>OPR2 - The organization treats me fairly and justly, compared to other organizations.</td>
<td>.758</td>
<td>.043</td>
<td>20.811</td>
</tr>
<tr>
<td>OPR1 - Members of the organization are truthful with me.</td>
<td>.689</td>
<td>.045</td>
<td>18.455</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Organization-Public Relationships – Control Mutuality</th>
<th>Standardized Regression Estimate (β)</th>
<th>S.E.</th>
<th>C.R. (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPR8 - Both the organization and we have mutual beneficial relationships.</td>
<td>.603</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPR7 - Both the organization and we agree on what we can expect from one another.</td>
<td>.677</td>
<td>.059</td>
<td>18.386</td>
</tr>
<tr>
<td>OPR6 - In most cases, during decision making, both the organization and I have equal influence.</td>
<td>.537</td>
<td>.075</td>
<td>13.389</td>
</tr>
<tr>
<td>OPR5 - Generally speaking, the organization and I both are satisfied with the decision-making process.</td>
<td>.845</td>
<td>.071</td>
<td>16.259</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Organization-Public Relationships – Relationship Satisfaction</th>
<th>Standardized Regression Estimate (β)</th>
<th>S.E.</th>
<th>C.R. (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPR12 - Our relationship with the organization is good.</td>
<td>.898</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPR11 - In general, we are satisfied with the relationship with the organization.</td>
<td>.849</td>
<td>.034</td>
<td>28.203</td>
</tr>
<tr>
<td>OPR10 - Generally speaking, our relationship with the organization has problems.*</td>
<td>.321</td>
<td>.060</td>
<td>8.191</td>
</tr>
<tr>
<td>OPR9 - Generally speaking, organization members meet our needs.</td>
<td>.763</td>
<td>.044</td>
<td>21.402</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Organization-Public Relationships – Relationship Commitment</th>
<th>Standardized Regression Estimate (β)</th>
<th>S.E.</th>
<th>C.R. (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPR16 - I wish I had never entered into the relationship with the organization.*</td>
<td>.399</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPR15 - I wish to keep a long-lasting relationship with the organization.</td>
<td>.927</td>
<td>.183</td>
<td>10.359</td>
</tr>
<tr>
<td></td>
<td>Standardized Regression Estimate (β)</td>
<td>S.E.</td>
<td>C.R. (t)</td>
</tr>
<tr>
<td>----------------</td>
<td>--------------------------------------</td>
<td>------</td>
<td>----------</td>
</tr>
<tr>
<td>OPR14 - I believe that it is worthwhile to try to maintain the relationship with the organization.</td>
<td>.803</td>
<td>.162</td>
<td>10.166</td>
</tr>
<tr>
<td>OPR13 - I do not wish to continue a relationship with the organization.*</td>
<td>.364</td>
<td>.074</td>
<td>12.256</td>
</tr>
</tbody>
</table>

*Note. All p values < .001; * indicates a reverse-scored item.

**Correlation.** For the given CFA model, AMOS version 24.0 provides a correlation matrix. Pearson correlation analysis investigates relationships between two variables by indicating the existence of correlations given by a p-value and strength given by the coefficient between -1 and 1. A correlation between two variables exists and is significant when a p-value is less than .05. Cohen (1988) suggested guidelines to determine an absolute value of correlation coefficients: 0.1 is classified as small, an absolute value of 0.3 is classified as medium, and of 0.5 is classified as large. The analysis indicates that the following relationships between dimensions of team identification and organization-public relationships have significant and large correlations: behavioral involvement and trust ($r = .518, p < .001$), cognitive awareness and relationship commitment ($r = .504, p < .001$), interconnection of self (affect) and trust ($r = .596, p < .001$), interconnection of self (affect) and control mutuality ($r = .524, p < .001$), private evaluation and trust ($r = .550, p < .001$), private evaluation and relationship satisfaction ($r = .596, p < .001$), private evaluation and relationship commitment ($r = .661, p < .001$), public evaluation and trust ($r = .505, p < .001$), and public evaluation and control mutuality ($r = .544, p < .001$). Among them, the correlation between private evaluation and relationship commitment was the largest (Table 4.6).

The sense of interdependence dimension was the only dimension that was not correlated with any of dimensions of organization-public relationships. Even though a common or shared
fate in group membership has been considered an important aspect of social identity theory, recent studies (for example, Ashmore, Deaux, & McLaughlin-Volpe, 2004; Lock et al., 2014) in sport organization and fandom revealed that “individuals may or may not share an awareness of a common fate with other group members” (Lock et al., 2014, p. 129).

Table 4.6. Correlation Coefficients for Confirmed Factors from the CFA Model

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. TIDBI</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. TIDCA</td>
<td>.371</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. TIDIS</td>
<td>.569</td>
<td>.463</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. TIDSI</td>
<td>.538</td>
<td>.306</td>
<td>.745</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. TIDPiE</td>
<td>.317</td>
<td>.492</td>
<td>.519</td>
<td>.205</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. TIDPuE</td>
<td>.260</td>
<td>.175</td>
<td>.367</td>
<td>.235</td>
<td>.413</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. OPRT</td>
<td>.518</td>
<td>.401</td>
<td>.596</td>
<td>.443</td>
<td>.550</td>
<td>.505</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. OPRCM</td>
<td>.441</td>
<td>.260</td>
<td>.525</td>
<td>.472</td>
<td>.414</td>
<td>.544</td>
<td>.937</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. OPRRS</td>
<td>.370</td>
<td>.350</td>
<td>.424</td>
<td>.275</td>
<td>.596</td>
<td>.455</td>
<td>.789</td>
<td>.802</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>10. OPRRC</td>
<td>.288</td>
<td>.504</td>
<td>.477</td>
<td>.224</td>
<td>.661</td>
<td>.240</td>
<td>.558</td>
<td>.475</td>
<td>.684</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note. TIDBI = behavioral involvement dimension of team identification, TIDCA = cognitive awareness dimension of team identification, TIDIS = interconnection of self (affect) dimension of team identification, TIDSI = sense of interdependence dimension of team identification, TIDPiE = private evaluation dimension of team identification, TIDPuE = public evaluation dimension of team identification, OPRT = trust dimension of organization-public relationship outcomes, OPRCM = control mutuality dimension of organization-public relationship outcomes, OPRRS = relationship satisfaction dimension of organization-public relationship outcomes, and OPRRC = relationship commitment dimension of organization-public relationship outcome. All p values < .001.

**Research Question 2.** After examining all hypotheses and the first research question, the study analyzed the proposed model to answer the second research question about whether gender affects the relationships among the variables in the proposed model. AMOS provides a function to test differences of multiple groups in the same data set. When running the path analysis for the hypotheses and the proposed model, the current study put the information for two different
groups of gender (male and female) in the data set. The path analysis showed two different result outcomes to compare (see Table 4.7).

Table 4.7. Standardized Coefficient in Male and Female Groups

<table>
<thead>
<tr>
<th>Paths</th>
<th>Male (N = 412)</th>
<th>Female (N = 261)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>S.E.</td>
</tr>
<tr>
<td>Duration → TeamID</td>
<td>.085</td>
<td>.003</td>
</tr>
<tr>
<td>Duration → OPR</td>
<td>.031</td>
<td>.003</td>
</tr>
<tr>
<td>SMC → TeamID</td>
<td>.459</td>
<td>.022</td>
</tr>
<tr>
<td>SMC → OPR</td>
<td>.263</td>
<td>.019</td>
</tr>
<tr>
<td>TeamID → Attitude</td>
<td>.126</td>
<td>.059</td>
</tr>
<tr>
<td>OPR → Attitude</td>
<td>.428</td>
<td>.066</td>
</tr>
<tr>
<td>Attitude → AttendanceIn</td>
<td>.132</td>
<td>.067</td>
</tr>
<tr>
<td>Attitude → PurchaseIn</td>
<td>.839</td>
<td>.109</td>
</tr>
</tbody>
</table>

Note. β = Standardized Estimates, S.E. = Standard Errors, t = probability value * p < .05, ** p < .01, *** p < .001, TeamID = team identification, OPR = organization-public relationships, AttendanceIn = Attendance Intention, PurchaseIn = Purchase intention of team-related products, SMC = sport media consumption

Summary of gender difference in the paths. The current study compared a critical ratio of two groups (males and females) to statistically examine gender differences. Table 4.8 provides information about the critical ratio estimates of each group and standardized score of the differences. Among paths in the proposed model, only one path from attitude to attendance intention was significantly different in male and female groups: the female group showed a higher effect on attendance intention compared to the male group. Therefore, the second research question was partially supported.
Table 4.8. Critical Ratio Differences in Male and Female Groups

<table>
<thead>
<tr>
<th>Paths</th>
<th>Male (N = 412)</th>
<th>Female (N = 261)</th>
<th>z-score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>P</td>
<td>Estimate</td>
</tr>
<tr>
<td>Duration → TeamID</td>
<td>0.007</td>
<td>0.029</td>
<td>0.005</td>
</tr>
<tr>
<td>Duration → OPR</td>
<td>0.002</td>
<td>0.484</td>
<td>0.000</td>
</tr>
<tr>
<td>SMC → TeamID</td>
<td>0.235</td>
<td>0.000</td>
<td>0.208</td>
</tr>
<tr>
<td>SMC → OPR</td>
<td>0.106</td>
<td>0.000</td>
<td>0.108</td>
</tr>
<tr>
<td>TeamID → Attitude</td>
<td>0.136</td>
<td>0.020</td>
<td>0.210</td>
</tr>
<tr>
<td>OPR → Attitude</td>
<td>0.584</td>
<td>0.000</td>
<td>0.610</td>
</tr>
<tr>
<td>Attitude → AttendanceIn</td>
<td>0.177</td>
<td>0.009</td>
<td>0.412</td>
</tr>
<tr>
<td>Attitude → PurchaseIn</td>
<td>1.095</td>
<td>0.000</td>
<td>1.242</td>
</tr>
</tbody>
</table>

Notes: *** p-value < 0.01; ** p-value < 0.05; * p-value < 0.10, TeamID = team identification, OPR = organization-public relationships, AttendanceIn = Attendance Intention, PurchaseIn = Purchase intention of team-related products, SMC = sport media consumption
CHAPTER 5

DISCUSSION

The current study sought to identify direct influences on each other among duration and sport media consumption, team identification, organization-public relationships, attitudes towards the favorite team, and behavioral intentions such as attendance intention and purchase intention of team-related products as well as a moderating effect of gender. It also suggested a conceptual model based on paths among these variables. In addition, the study investigated correlations among multiple dimensions of team identification and organization-public relationships to provide connections between identification and relational perceptions of sport fans towards their favorite teams.

Based on a review of the literature on social identity approaches, team identification, organization-public relationships, and attitudes and intentions, I conducted a survey and ran a path analysis, CFA, and correlation using AMOS.

This chapter includes five parts: a summary of results of the tests for the hypotheses and research questions, theoretical implications, practical implications, limitations of the study and suggestions for further research, and a conclusion.

Summary of Hypotheses and Research Questions

First, the study conducted a SEM path analysis using AMOS version 24.0 to test the given hypotheses and the proposed model. The analyses proved the significance of the proposed model, which satisfied most of the indexes of the goodness of the fit to the data. The proposed model contained two antecedents of the model duration and team-related media consumption,
team identification and organization-public relationships, attitudes towards the team, and two behavioral intentions including attendance and purchase. In addition, the path analysis contained the function to compare critical ratios of two groups (males and females) to statistically examine gender differences. The result indicates that among paths in the proposed model, only one path from attitude to attendance intention was significantly different between the male and female groups: the female group showed a higher effect on attendance intention compared to the male group.

Secondly, this study tested the direct effects of duration of a sport fan’s fanship towards his or her favorite NFL team and sport media consumption on both team identification and organization-public relationships. The results show that sport media consumption directly affects team identification and organization-public relationships, while duration did not significantly influence these factors. To be more specific, the path analysis between the time variable and team identification showed only a small effect, even though the probability value was significant. The hypothesis that there was a direct effect of the time variable on organization-public relationships was rejected. In other words, a longer period of fanship does not necessarily mean higher team identification and relationships. On the other hand, sport media consumption directly affects a NFL fan’s identification with and perception of relationship with the favorite team. If a sport fan watches more of the team’s games on television or follows and visits the team’s social network sites, the degree of that fan’s identification and relationships with the team will be higher.

Thirdly, the study investigated which dimensions of the outcomes of an organization-public relationship correlate with the dimensions of team identification. The dimensions are behavioral involvement, cognitive awareness, interconnection of self (affect), sense of
interdependence, private evaluation, and public evaluation in team identification and trust, and control mutuality, relationship satisfaction, and relationship commitment in organization-public relationships. The results of a confirmatory factor analysis (CFA) and correlation analysis show that all factor loadings were significantly included in the model, in which most of the items were included in a total of 10 dimensions as suggested in this study. However, some items in the organization-public relationships measurement showed lower loadings (i.e., below 0.5).

In addition to the CFA, a correlation analysis indicates that the following relationships between dimensions of team identification and organization-public relationships have significant and large correlations (over .5): behavioral involvement and trust, cognitive awareness and relationship commitment, interconnection of self (affect) and trust, interconnection of self (affect) and control mutuality, private evaluation and trust, private evaluation and relationship satisfaction, private evaluation and relationship commitment, public evaluation and trust, and public evaluation and control mutuality. Trust in organization-public relationships was the most correlated dimension of the dimensions of team identification, while sense of interdependence in team identification was not correlated with any of the dimensions in organization-public relationships.

Moreover, degree of identification and relational perception of a NFL fan directly affect attitude towards his or her favorite team. To be more specific, the effect of organization-public relationships is greater than the effect of team identification on attitude. A person’s attitude towards his or her team directly affects not only his or her purchase intentions of team-related products but also attendance intentions. In other words, if one has a good attitude towards the team, it will affect one’s intentions to attend future games or to buy team merchandise.
Theoretical Implications

**Duration, media consumption, and gender.** Three variables related to team identification and organization-public relationships as antecedents and a moderator were examined in the proposed model: duration, sport media consumption, and gender. The results imply that sport media consumption works better as an antecedent compared to duration of being a fan and gender partially works as a moderator in the model of team identification and organization-public relationships.

First, the period of one’s fanship of a specific sport team does not influence the degree of one’s identification and perception of the relationship with the team. Previous researchers argued that long-term fans who were involved with their favorite teams would show a higher degree of identification than those who had been fans for a shorter period (Branscombe & Wann, 1991; Wann, 2006; Wann et al., 2006), and the current study also assumed this. And there was statistical significance, but it was only a small effect.

There are some possible reasons for these different results. First of all, the definition of “long-term period” in this study might be different from that in previous studies. The previous studies (for example, Branscombe & Wann, 1991) targeted undergraduate students and collegiate sport fans, and the average period of a being a fan of the specific team was 4.52 years. However, the average duration of a being a fan of a specific NFL team in this study is 18.20 years. Therefore, it can be assumed that past a certain point in time, being a fan might not affect the degree of team identification.

Secondly, the characteristics of the respondents in this study compared to those in previous studies might lead to different results. Previous research designs targeted participants who were supporting only one particular sport organization (for example, a collegiate sport
team), and participants had experienced the same recent history of the team, for example, recent performance over a rival team. However, the current study targeted respondents who are fans of many different NFL teams, which have had different histories over the course of a long time. Therefore, it can be assumed that various extraneous variables affect team identification along with the duration variable.

In addition, the current study found that the time variable also does not influence organization-public relationships, even though previous studies explained that the time variable was an important antecedent for organization-public relationships (for example, Bruning & Hatfield, 2002; Hung, 2005; Ledingham, 2003; Ledingham, Bruning, & Wilson, 1999; Seltzer and Zhang, 2011b). The findings of this study did not support the assumption that as the duration of being a fan lengthens, the degree of relationship perception of fans would be higher. In other words, in previous studies on relationship management, the time variable was strongly related with communication strategies over a long period. For example, Seltzer and Zhang (2011b) explained that the time factor was a significant antecedent of strong political organization-public relationships when it was accompanied by interpersonal trust, mediated communication, interpersonal communication, and dialogic communication. Ledingham (2003) explained that effective relational management should be combined with interactive efforts such as sharing common interests and goals over time. It seems that sport fans did not notice efforts by the team to interactively communicate with them, even though they had been fans of the team for a long time.

On the other hand, how much time a sport fan spends consuming team-related media content positively influences the degree of identification and relationships, as examined in previous studies. For instance, Phua (2014) pointed out that the amount of time spent consuming
various media should affect the degree of team identification, and Park and Dittmore (2014) found that social media consumption in particular had direct effects on not only team identification, but also attendance intention. The results of this study supported the findings in these previous studies. To be more specific, regardless of the distance of their residence from the location where their favorite team is based, NFL fans can enjoy the games and share information via various media. The 20.8% of respondents answered that distance between their residence and location that the team plays is more than 1001 miles supports this argument.

Meanwhile, the question whether gender works as a moderator in the model including team identification, organization-public relationships, attitudes, and behavioral intentions still remains: there was only one path (i.e., between attitudes and attendance intention) that showed a difference in gender groups. In terms of the effect of gender difference on team identification, the current study did not provide significant results, and previous studies have shown arguable results too. For example, Mehus and Kolstad (2011) pointed out that male sport fans more strongly identify themselves with the favorite team than female fans, and Dhurup (2012) found that male sports fans showed more BIRGing than female fans. Fink et al. (2002b) also suggested that gender differences affect present and future behaviors of spectators. However, other scholars provided different results. For example, Ware and Kowalski (2012) argued that when male and female sport fans were highly involved in their favorite teams, there was no significant difference in gender. Based on the result about the duration of a being a fan as described above, a longer term of fandom may be the reason there was no difference between the genders. In other words, from the perspective of public relations practitioners in sport organizations, male and female sport fans should not be considered different groups if they are long-term fans.
On the other hand, female NFL fans who have more positive attitudes towards the team show higher intention to attend future games than male fans. This supports similar results in previous studies. For example, Fink et al. (2002b) explained that female fans were more likely than male fans to intend to purchase team merchandise in the future. As Fink et al. (2002b) suggested, public relations practitioners should endeavor to capture the interest of female fans in their marketing strategies.

**Integrating team identification and organization-public relationships.** This study examined whether dimensions of organization-public relationship outcomes including commitment, trust, control mutuality, and satisfaction are correlated with dimensions of team identification including behavioral involvement, cognitive awareness, interconnection of self affect, sense of interdependence, private evaluation, and public evaluation. As Heere and James (2007b) and Lock et al. (2014) have suggested, research on measurements for team identification are needed to expand its theoretical explanation into broader concepts. Heere and James (2007b) created and used multi-dimensional measurement for team identification, borrowing psychological principles including social identity theory and self-traits (Heere & James, 2007b). Their Team*ID scale “set out to measure a broader set of sociological and psychological concepts than those outlined in previous measurement tools” (Lock et al., 2014, p. 121).

However, as Heere and James (2007b) and Lock et al. (2014) demonstrated, the measurement still needs adjustment and improvement before it can be used as a common measurement in studies of public relations for sport organizations.

In that sense, the current study insists that relational perspectives might work as a dimension of team identification; the results of the correlation analysis suggest connections between identification and relational perceptions of sport fans towards their favorite teams. OPR
dimensions will help find the intersection between the two concepts and lead to greater understanding of team identification in the public relations context. Based on the findings of this study, future researchers can refine existing dimensions and verify the reliability and validity of the Team*ID and OPR measurements. This will make it possible to create a sport organization-fan relationships measurement in future research.

The correlations among the dimensions of team identification and organization-public relationships provide insight to connect these concepts and condense the different dimensions into a new measurement. The following were highly correlated with each other.

**Behavioral involvement with trust.** According to Heere and James (2007b), behavioral involvement is a direct expression of sport fans’ identification with their favorite teams. Sport fans who have higher behavioral involvement might attend or watch games and purchase products related to the team (Heere & James, 2007b). On the other hand, the trust dimension of organization-public relationships is “a belief by publics that an organization is reliable, honest, and stands by its words as well as accomplishes its promised obligations” (Ki & Hon, 2007a, p. 422). In other words, trust of key publics such as customers, employees, and even media is an important factor that allows organizations to function effectively (Ki & Hon, 2007a). As Ki and Hon (2007a) explained, trust leads sport fans to act or express physical behaviors such as supporting, attending, watching, or purchasing. Satisfaction after behavioral involvement can lead to a higher degree of trust.

**Cognitive awareness with commitment.** According to scholars such as Heere and James (2007b), Wann and Branscombe (1995), and Lock et al. (2014), cognitive awareness is the objective and subjective knowledge about the favorite teams that sport fans have, such as information and history of the team and relative information about the group of fans. This
knowledge is important because it is directly correlated with fans’ identity. Lock et al. (2012) explained that when a new sport team is created, the process of gaining knowledge about the team and players is vital to develop team identification. Kang and Yang (2010) made a similar argument from the perspective of relationship management; that is, it is important to raise individual publics’ recognition of the organization’s relationship-building initiatives. To be more specific, awareness is a very important element to evaluate the relationship between stakeholders and organizations. The relationship should become effective with full awareness and recognition of stakeholders and “bring out supportive behaviors” (Kang & Yang, 2010, p. 490).

The correlated pair of cognitive awareness in team identification and relational commitment in organization-public relationships can be interpreted in light of this understanding. According to Ki and Hon (2007a), there are two kinds of commitment: continuance and affective. Continuance commitment is commitment to keep performing specific actions, and affective commitment is emotional and psychological commitment that attaches publics to organizations (Ki & Hon, 2007a). Therefore, this correlation between cognitive awareness and commitment can be understood as continuance and affective commitment. For example, as a sport fan learns more about the team, players, and other fans, he or she would feel emotional attachment to the team and the group of fans. Learning more about the team might also lead to more behaviors that are related to the knowledge, such as discussing the team with others.

Interconnection of self with trust and control mutuality. The next two pairs from the result of correlation analysis are 1) interconnection of self in team identification and trust in organization-public relationships and 2) interconnection of self and control mutuality. First, like the dimension of interdependence, the dimension of interconnection of self arises from the concept of attachment and the tendency for individuals to connect themselves and in-groups
(Heere & James, 2007b). Therefore, the dimension of interconnection of self naturally shares meaning with the concept of control mutuality in organization-public relationships. From the perspective of relationship management, control mutuality means how parties reach agreement on how they exchange power to influence one another (Hon & Grunig, 1999). Therefore, control mutuality is related to the process of decision-making and affects the extent to which each party’s voice can be heard in the final outcome (Hon & Grunig, 1999; Ki & Hon, 2007a). To understand the meaning of control mutuality based on the correlation with interconnection of self, sport fans can perceive their interconnectivity to the team by recognizing how they have power to influence the team and vice versa. The second dimension in organization-public relationships that correlates with interconnection of self is trust. The correlation between these two can be understood in that a sport fan might show higher trust when he or she is emotionally attached to the team.

**Private evaluation with trust, commitment, and satisfaction.** Private evaluation is correlated with the most OPR dimensions. According to Heere and James (2007b), the private evaluation of a sport fan is his or her positive or negative attitudes towards the team. It seems that self-evaluation of the favorite team can be highly related to individual fans’ perception of their relationships with the team. To be more specific, a sport fan assesses the team as his or her own evaluation standard in various aspects of performance and ethics, and the evaluation can affect or be affected by various relational dimensions such as trust, commitment, and satisfaction. Trust and commitment as relationship dimensions can be established on the basis of private evaluation. In general, a sport fan’s poor evaluation of a certain team will rarely lead to trust and commitment.
In relationship management, satisfaction is considered a relational dimension that includes aspects of affection and emotion (Huang, 2000; Jo, 2006). Ki and Hon (2007a) explained that “satisfaction is typically calculated by the extent to which the benefits of the relationship exceed the expectations that both parties have and a satisfying relationship produces more benefits than costs” (p. 422). Therefore, when a sport fan evaluates the team itself and the relationship, expectation and satisfaction will be calculated based on this evaluation. At the same time, the results of satisfaction will be reflected in the evaluation. This cycle of self-evaluation and satisfaction affect to increase the total degree of team identification and relationships.

**Public evaluation with trust and control mutuality.** In contrast to private evaluation, public evaluation is a sport fan’s perception of others’ evaluation of the team (Heere & James, 2007b). In general, a sport team’s performance affects private and public evaluation, but it is not always the case. According to Lock et al. (2014), sometimes sport fans use others’ evaluation of their favorite teams as references to perceive the team beyond its performance. This explanation can be applied to the linkages of public evaluation with trust and control mutuality. In other words, sport fans assess their favorite teams based on the view of others, and this assessment affects the fans’ degree of trust and mutuality.

**The influences of identification and relationships on attitudes towards the team.** Based on a review of relevant literature, the current study assumed that a sport fan’s identification and perception of relationships with a team would influence his/her attitudes towards the favorite team, and path analysis was used to examine the effects of identification and perception of relationships on attitudes. The results support and verify the positive relationships between team identification and attitudes and organization-public relationships and attitudes found in previous studies.
Attitude, defined as one’s favorable or unfavorable response to some object (Fishbein & Ajzen, 1974), has been one of the most popular dependent variables in studies of relationship management as well as sport management. Studying attitudes is considered very important in sport management and relationship management related to marketing and promotional perspectives because attitudes toward the brand or organization are considered a consumer’s internal evaluation (Ahn et al., 2012; Mitchell & Olson, 1981). In this study, sport fans were asked to share their attitudes toward their favorite team using words such as favorable, likable, positive, good, beneficial, attractive, and excellent (in performance).

In the sport communication context, scholars have studied the direct influence of team identification on attitudes towards the team, as the current study did (Ahn et al., 2012; Kwon, Kim, & Mondello, 2008; Madrigal, 2001). For example, Madrigal (2001) described team identification as highly related with attitude on a sponsor’s products, especially for sport fans who have higher degrees of team identification than others, and attitudes lead to buying intention of sponsored products too. In addition, Kwon et al. (2008) examined effects of team identification on attitude toward cobranded licensed apparel.

Meanwhile, many researchers have examined the moderating effect of team identification on attitude towards the team and behavioral intentions (for example, purchase intention of products with team logos in Ahn et al., 2012; purchase intention of sponsor’s products in Madrigal, 2001). The current study focused on the path through team identification, attitudes, and behavioral intention based on the theories of planned behavior and reasoned action, which concentrate on the direct relationship between attitudes and intentions. However, the conflicted explanation about effective directions between team identification and attitudes towards the team should be studied in future research.
Meanwhile, the current study also confirmed previous findings that organization-public relationships directly influence attitudes toward the organization (for example, Bortee, 2010; Kang & Yang, 2010; Ki & Hon, 2007b; Kim & Chan-Olmsted, 2005). To be more specific, organization-public relationship outcomes positively influence behavioral intentions (Kang & Yang, 2010; Ki & Hon, 2007b). The satisfaction dimension was a particularly significant predictor of attitude and intentions (Ki & Hon, 2007b; Kim & Chan-Olmsted, 2005), and the control mutuality dimension worked as an antecedent of intention to volunteer for a non-profit organization (Bortee, 2010). In the current study, the result of path analysis indicated that the effect size of organization-public relationships on attitudes was greater than the effect of team identification, and this implies that public relations practitioners should concern themselves with managing and maintaining good relationship with their fans to gain favorable attitudes and the following intentions.

**The influence of attitudes on behavioral intentions.** A review of the literature allowed for the assumption that attitudes toward a certain object bring intentions to act, and these behavioral intentions might be possible antecedents of actual behaviors. Kim and Chan-Olmsted (2005) pointed out that “in the absence of actual buying behavior, management uses this closest substitute to determine the effectiveness of the components in a marketing mix” (p. 152). Therefore, sport management and relationship management researchers have focused on the relationship between attitudes and intentions. The finding of this study that attitude towards the team directly influences intentions to attend future games and purchase products related to the team supports the findings of previous studies (for example, Ahn et al., 2012; Fishbein & Ajzen, 1974; Kang & Yang, 2010; Kim & Chan-Olmsted, 2005).
First, some researchers in sport management have focused on intentions of sport fans to attend future games based on their levels of identification and loyalty to the team (Cunningham & Kwon, 2003), purchase licensed products (Kwon et al., 2008), purchase sponsorship products (Irwn, Lachowetz, Cornwell, & Clark, 2003; Madrigal, 2001), and use media (Mahony & Moorman, 2000). Cunningham and Kwon (2003) examined attitudes along with subjective norms and found that previous behavior and perceived behavioral control-time were positively related to the intention to attend a collegiate sport event. The analysis of the present study found that the effect of attitudes on attendance intention was less than the effect on purchase intention. The result might be explained by external factors that might affect the possibility of actually attending future games, such as budget and distance to a stadium.

In addition, relationship management studies pay attention to the effects relational perception of publics have on behavioral intentions such as behavioral intention towards non-profit organizations in Kang and Yang (2010) and purchase intention and attitudes towards brands in Kim and Chan-Olmsted (2005).

Practical Implications

The findings of the current study have practical implications in that the method used in the study was an online survey to target nationwide NFL fans, in contrast to previous studies that targeted certain collegiate and professional sport teams. In other words, the model that was proposed in the study explains generalized concepts rather than findings based on specific teams or circumstances. This means that a certain team’s history and recent events and performances are controlled in the model, and the model can focus on sport fans’ characteristics. Public relations practitioners in sport organizations want to maintain consistent interest from their fans towards the team regardless of the team’s performance and external circumstances, so
understanding sport fans’ perception of their relationship and identification with the team will help them conduct promotional and public relational strategies and tactics.

The current study provides insight into sport fans’ perception of their identification and relationship with the team using multi-dimensional measurements of team identification and organization-public relationships. The sport industry is still growing, and geographic boundaries for sport fans are becoming more blurred. Professional sport organizations try to promote their values not only to the communities the organizations belong to but also to online and worldwide markets. Team identification and relationship outcomes are two big pillars for professional sport organizations to understand sport fans and continue positive relationships with them. The results of this study support the assumption that positive identification and relational perception of fans lead to positive attitudes towards the team and further intentions to buy something related to the team or attend future games if possible. In addition, the findings imply that understanding specific characteristics of identification and relationships will help to understand fans and carry out specific strategies based on their characteristics.

Moreover, these specific dimensions of relational perception and identification add to the understanding that sport fans not only enjoy the team’s performance, but also are pleased to interactively communicate with the team and other members of the supporting groups. As seen in this study, dimensions of relational perception and identification contain variously interactive concepts such as control mutuality, interconnection of self, and commitment. Therefore, public relationship practitioners in sport organizations should provide various media environments to communicate with their fans.

Related to communication, the current study suggests that public relations practitioners in sport organizations actively utilize social media. Abeza, O’Reilly, and Reid (2013) point out that
contemporary sport organization marketers and PR practitioners use social media and other media to communicate with their customers and maintain relationships, and Kim et al. (2013) argued that “social media may be crucial to enhance a sport consumer’s continuance commitment to the team” (p. 183). In this study, the finding of a strong effect of sport media consumption including social media usage on team identification and organization-public relationships supports this argument.

**Limitations and Suggestions**

The first limitation of this study is about the measurement of organization-public relationships. Some items in the measurement that were reverse coded showed lower reliabilities, and this affected the factor analysis and correlations. While team identification measurements showed very reliable and valid results, the organization-public relationship scale had weak validity. Previous studies (for example, Ki & Hon, 2007; Ki & Brown) had strong validity so the current study used confirmed factors based on these previous studies, but this weak validity limits the results of confirmatory factor analysis and correlation analyses in this study. In light of this limitation, future researchers should ensure the reliability and validity of the measurement through pretests. It is obviously too difficult to analyze and ensure whether the results of exploratory factor analysis are the same as the results of confirmed factor analysis in previous studies. However, several rounds of pretests and revising the scales will be helpful to improve the qualities of validity and reliability.

With improved measurements of organization-public relationships and team identification, future researchers can investigate more concrete results of correlation among the dimensions of the two measurements. The results of the correlation will provide insights to create a new measurement of sport organization-fan relationships. Researchers can ensure
whether a new measurement would be valid and reliable through several studies to examine validity and reliability. Based on this process, confirmed new measurements can be used to study various topics surrounding the relationships between sport organizations and their identified fans.

The final suggestion is that there are other possible variables that can be examined. This study examined how team identification and organization-public relationships directly affect attitudes, attendance intention, and purchase intention of team-related products. Other intentions and actual behaviors such as usage of team-related media, word-of-mouth, and usage of social media can be studied in the future.

**Conclusion**

Sport organizations are concerned with how to create and maintain good relationships with their fans among the swiftly changing media environment and trends in the sport industry. Unlike in the era of mass media, contemporary sport fans not only passively consume content that the team provides, but also actively communicate with each other and sometimes even lead communications with social media. Rapid development of technologies has created various social media that allow various options for sport fans to communicate with the team and other fans as well as commit their time and effort to develop the relationships.

In addition, from a business perspective in sport organizations, not only selling the performance itself but also promoting various related products and services are an additional source of profit and opportunity for sport teams as businesses. Therefore, paying attention to how to increase behavioral intentions to attend games and purchase products is a very important matter for sport organizations.
Therefore, it is very important to understand the elements that constitute the complicated relationships between sport organizations and their identified fans, as the current study suggested the model of team identification and organization-public relationships.
REFERENCES


102


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APPENDIX 1

QUESTIONNAIRE

THE UNIVERSITY OF ALABAMA
HUMAN RESEARCH PROTECTIONS PROGRAM

STUDY PRESENTATIONS FOR WEB SURVEYS

RESEARCH INVITATION

Eunyoung Kim, Principal Investigator from the University of Alabama, is conducting a study called “American-football fans’ involvement and relationship with their favorite teams.” The investigator wishes to find out how NFL fans perceive their involvement and relationship with their favorite teams.

Taking part in this study involves completing a web survey that will take no more than 15 minutes. This survey contains questions about participants’ favorite NFL team, degree of team identification, the degree relationship with the team, media consumption related to the favorite team, attitudes and behavioral intentions, and demographic questions.

As a participant of this study, you should be 18 years of age and older.

We will protect your confidentiality by password protected digital format. Only investigators of this study will have access to the data. The data are password protected. Regarding a technical issue on anonymity, any work performed on MTurk can be linked to the user’s public profile page and that MTurk worker IDs (i.e., the 14 character sequence of letters and numbers used to identify workers) will not be shared with anyone. Also, MTurk worker IDs will only be collected for the purposes of distributing compensation and will not be associated with survey responses.

Secured survey responses with no names or other identifiers will be delivered to us. Only the primary researcher (Eunyoung Kim) and her adviser will be access the data, and summarized data will be analyzed and presented at meetings or in publications.

There will be no direct benefit to you. The findings will be useful to scholars and public relations practitioners in sport organizations who are seeking how sport fans react to sport teams’ performance.

We anticipate there is no foreseeable physical, psychological, or political risk to participate in this survey. However, you may skip any questions you do not want to answer.
If you have questions about this study, please contact Eunyoung Kim, a doctoral student, College of Communication and Information Science at (205) 348-9436 or ekim10@crimson.ua.edu or her research advisor Dr. Karla Gower, a professor at Department of Advertising and Public Relations, College of Communication and Information Science at (205) 348-0132 or gower@apr.ua.edu. If you have questions about your rights as a research participant, contact Ms. Tanta Myles (the University Compliance Officer) at (205) 348-8461 or toll-free at 1-877-820-3066. If you have complaints or concerns about this study, file them through the UA IRB outreach website at http://osp.ua.edu/site/PRCO_Welcome.html. Also, if you participate, you are encouraged to complete the short Survey for Research Participants online at this website. This helps UA improve its protection of human research participants.

Please print a copy of this for to keep for your records.

YOUR PARTICIPATION IS COMPLETELY VOLUNTARY. You are free not to participate or stop participating any time before you submit your answers.

Do you agree to participate in this survey?

YES, I AGREE TO PARTICIPATE.  Click
NO, I DECIDED NOT TO PARTICIPATE.  Click
Survey

American-football fans’ involvement and relationship with their favorite teams

PART 0. RECRUITING QUESTIONS

Please take this survey if you enjoy watching or attending professional American-style football games. This survey includes questions about your involvement and activities regarding your favorite football team.

PART I. FAVORITE SPORT TEAM

Q1. Are you a fan of any sports?
   1) Yes  2) No

Q2. Are you a fan of (American) football?
   1) Yes  2) No

Q3. Are you a fan of any football team in NFL?
   1) Yes  2) No

Q4. Which team is your favorite team in NFL? Please check the favorite team.

<table>
<thead>
<tr>
<th>New England Patriots</th>
<th>New York Jets</th>
<th>Buffalo Bills</th>
<th>Miami Dolphins</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cincinnati Bengals</td>
<td>Pittsburgh Steelers</td>
<td>Baltimore Ravens</td>
<td>Cleveland Browns</td>
</tr>
<tr>
<td>Indianapolis Colts</td>
<td>Houston Texans</td>
<td>Jacksonville Jaguars</td>
<td>Tennessee Titans</td>
</tr>
<tr>
<td>Denver Broncos</td>
<td>Kansas City Chiefs</td>
<td>Oakland Raiders</td>
<td>San Diego Chargers</td>
</tr>
<tr>
<td>Washington Redskins</td>
<td>Philadelphia Eagles</td>
<td>New York Giants</td>
<td>Dallas Cowboys</td>
</tr>
<tr>
<td>Green Bay Packers</td>
<td>Minnesota Vikings</td>
<td>Chicago Bears</td>
<td>Detroit Lions</td>
</tr>
<tr>
<td>Carolina Panthers</td>
<td>Tampa Bay Buccaneers</td>
<td>Atlanta Falcons</td>
<td>New Orleans Saints</td>
</tr>
<tr>
<td>Arizona Cardinals</td>
<td>Seattle Seahawks</td>
<td>St. Louis Rams</td>
<td>San Francisco 49ers</td>
</tr>
</tbody>
</table>

Q5. How long have you been a fan of the favorite team?
   ____________________ years and ____________________ months

Q6. Why are you a fan of the favorite team?
   Strongly disagree 1 2 3 4 5 6 7 Strongly agree
   1) The team is the local team in my own community.
   2) My family members (for example, parents and siblings) are fans of the team.
   3) My friends are fans of the team.
   4) The team’s performance is better than other teams.
5) I like the team’s logos and other symbols.
6) I like specific players.
7) Others ___________________________________ (Please write your own reason)

PART II. CONSUMPTION OF THE FAVORITE TEAM

1) Do you attend your favorite team’s games?
   __Yes  __No
   1-1) If yes, in the last 3 years, have attended a favorite team’s game in person?
       __Yes  __No
   1-2) If yes, how many times did you have attend the game in person?
       ( ) times / in three years

2) Do you watch your favorite team’s game on television?
   __Yes  __No
   2-1) If yes, how many times did you watch the games in regular seasons last year (16 games per season) on television?
       ( ) times / season

3) Do you read about your favorite team?
   __Yes  __No
   3-1) If yes, on average, how many hours per day, do you spend reading about your favorite team, in print media or online?
       ( ) hours / day

4) I enjoy discussing my favorite team with others.
   __ strongly disagree  __disagree  __neither disagree or agree  __agree  __strongly disagree

5) Do you own team-related merchandise?
   __Yes  __No
   5-1) On average in a year, how many do you spend on team-related merchandise?
       ( ) dollars in a year

6) Do you follow your favorite team via Facebook?
   __Yes  __No
   6-1) If yes, how many times do you visit the Facebook page of the team per day?
       ( ) times / day

7) Do you follow your favorite team via Twitter?
   __Yes  __No
   7-1) If yes, how often do you check the Twitter feed per day?
       ( ) times / day

8) Do you follow your favorite team via Instagram?
   __Yes  __No
8-1) If yes, how often do you view the Instagram of the team per day?
( ) times / day

PART II. TEAM IDENTIFICATION
Team Identification - The following set of questions is related to your involvement with your favorite team. Please mark on the number that represents your opinion.

<table>
<thead>
<tr>
<th>Strongly disagree 1___ 2___ 3___ 4___ 5___ 6___ 7___ Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) I participate in activities supporting [my favorite team].</td>
</tr>
<tr>
<td>2) I am actively involved in activities that related to [my favorite team].</td>
</tr>
<tr>
<td>3) I participate in activities with other fans of [my favorite team].</td>
</tr>
<tr>
<td>4) I am aware of the tradition and history of [my favorite team].</td>
</tr>
<tr>
<td>5) I know the ins and outs of [my favorite team].</td>
</tr>
<tr>
<td>6) I have knowledge of the successes and failures of [my favorite team].</td>
</tr>
<tr>
<td>7) When someone criticizes [my favorite team], it feels like a personal insult.</td>
</tr>
<tr>
<td>8) Being associated with [my favorite team] is an important part of my self-image.</td>
</tr>
<tr>
<td>9) When someone compliments [my favorite team], it feels like a personal compliment.</td>
</tr>
<tr>
<td>10) What happens to [my favorite team] will influence what happens in my life.</td>
</tr>
<tr>
<td>11) Changes that impact [my favorite team] will have an impact on my life.</td>
</tr>
<tr>
<td>12) What happens to [my favorite team] will have an impact on my life.</td>
</tr>
<tr>
<td>13) I feel good about being a fan of [my favorite team].</td>
</tr>
<tr>
<td>14) I am glad to be a fan of [my favorite team].</td>
</tr>
<tr>
<td>15) I am proud to think of myself as a fan of [my favorite team].</td>
</tr>
<tr>
<td>16) Overall, [my favorite team] is viewed positively by others.</td>
</tr>
<tr>
<td>17) In general, others respect [my favorite team].</td>
</tr>
<tr>
<td>18) Overall, people hold a favourable opinion of [my favorite team].</td>
</tr>
</tbody>
</table>

PART IV. ORGANIZATION-PUBLIC RELATIONSHIP

<table>
<thead>
<tr>
<th>Strongly disagree 1___ 2___ 3___ 4___ 5___ 6___ 7___ Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Members of the organization are truthful with me.</td>
</tr>
<tr>
<td>2) The organization treats me fairly and justly, compared to other organizations.</td>
</tr>
<tr>
<td>3) Generally speaking, I do not trust the organization.</td>
</tr>
<tr>
<td>4) The organization keeps its promises.</td>
</tr>
<tr>
<td>5) Generally speaking, the organization and we both are satisfied with the decision-making process.</td>
</tr>
<tr>
<td>6) In most cases, during decision-making, both the organization and we have equal influence.</td>
</tr>
<tr>
<td>7) Both the organization and we agree on what we can expect from one another.</td>
</tr>
<tr>
<td>8) Both the organization and we have mutual beneficial relationships.</td>
</tr>
<tr>
<td>9) Generally speaking, organization members meet our needs.</td>
</tr>
<tr>
<td>10) Generally speaking, our relationship with the organization has problems.</td>
</tr>
<tr>
<td>11) In general, we are satisfied with the relationship with the organization.</td>
</tr>
<tr>
<td>12) Our relationship with the organization is good.</td>
</tr>
<tr>
<td>13) I do not wish to continue a relationship with the organization.</td>
</tr>
</tbody>
</table>
| 14) I believe that it is worthwhile to try to maintain the relationship with the
organization.
15) I wish to keep a long-lasting relationship with the organization.
16) I wish I had never entered into the relationship with the organization.

PART V. ATTITUDE TOWARD THE TEAM
The following statements indicate your general feelings when you recall your favorite team. Please describe your overall feelings about the team.

1) My favorite team is _______.
   Very unfavorable 1___ 2___ 3___ 4___ 5___ 6___ 7___ Very favorable
2) My favorite team is _______.
   Very unlikeable 1___ 2___ 3___ 4___ 5___ 6___ 7___ Very likeable
3) My favorite team is _______.
   Very negative 1___ 2___ 3___ 4___ 5___ 6___ 7___ Very positive
4) My favorite team is _______.
   Very bad 1___ 2___ 3___ 4___ 5___ 6___ 7___ Very good
5) My favorite team is _______.
   Very harmful 1___ 2___ 3___ 4___ 5___ 6___ 7___ Very beneficial
6) My favorite team is _______.
   Very unattractive 1___ 2___ 3___ 4___ 5___ 6___ 7___ Very attractive
7) My favorite team’s performance is _______.
   Very poor 1___ 2___ 3___ 4___ 5___ 6___ 7___ Very excellent

PART VI. BEHAVIORAL INTENTIONS

1) PURCHASE INTENTION
The following statements are about your intentions to buy various products regarding your favorite teams if you can afford the products. Please describe how you are likely buy the products.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>
1) I would purchase team-related products of the favorite team such as jerseys and hats. |
2) I would consider buying the products at any prices that presented in shops. |
3) The possibility that I would consider buying is high. |

2) ATTENDANCE INTENTION

1) I would more likely to attend future games of the favorite team if possible.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

PART VII. DEMOGRAPHIC QUESTIONS

Q1. Gender: 1) Male 2) Female

Q2. Year born: _______
Q3. States

<table>
<thead>
<tr>
<th>Alabama</th>
<th>Alaska</th>
<th>Arizona</th>
<th>Arkansas</th>
<th>California</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado</td>
<td>Connecticut</td>
<td>Delaware</td>
<td>Florida</td>
<td>Georgia</td>
</tr>
<tr>
<td>Hawaii</td>
<td>Idaho</td>
<td>Illinois</td>
<td>Indiana</td>
<td>Iowa</td>
</tr>
<tr>
<td>Kansas</td>
<td>Kentucky</td>
<td>Louisiana</td>
<td>Maine</td>
<td>Maryland</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>Michigan</td>
<td>Minnesota</td>
<td>Mississippi</td>
<td>Missouri</td>
</tr>
<tr>
<td>Montana</td>
<td>Nebraska</td>
<td>Nevada</td>
<td>New Hampshire</td>
<td>New Jersey</td>
</tr>
<tr>
<td>New Mexico</td>
<td>New York</td>
<td>North Carolina</td>
<td>North Dakota</td>
<td>Ohio</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>Oregon</td>
<td>Pennsylvania</td>
<td>Rhode Island</td>
<td>South Carolina</td>
</tr>
<tr>
<td>South Dakota</td>
<td>Tennessee</td>
<td>Texas</td>
<td>Utah</td>
<td>Vermont</td>
</tr>
<tr>
<td>Virginia</td>
<td>Washington</td>
<td>West Virginia</td>
<td>Wisconsin</td>
<td>Wyoming</td>
</tr>
</tbody>
</table>

Q4. My favorite team plays:
1) less than 100 miles away
2) 101 to 300 miles
3) 301 to 500 miles
4) 501 to 999 miles
5) 1,001 miles or more away

Q5. Income range or level
What was your total household income before taxes during the past 12 months?
1) Less than $10,000
2) $10,001 to $24,999
3) $25,000 to $34,999
4) $35,000 to $49,999
5) $50,000 to $74,999
6) $75,000 to $99,999
7) $100,000 to $149,999
8) $150,000 or more

Q6. Education
What is the highest degree or level of school you have completed?
(If currently enrolled, highest degree received.)
1) Some high school, no diploma
2) High school graduate, diploma or the equivalent (for example: GED)
3) Some college
4) Completed Associate degree
5) Completed Bachelor’s degree
6) Postgraduate / Professional degree

That’s the end of the questionnaire. Thank you for your participation.
APPENDIX 2

IRB APPROVAL

May 18, 2016

Eunyoung Kim
CCIS
Box 870172

Re: IRB#: 16-OR-199 "American Football Fans' Involvement and Relationship with their Favorite Teams"

Dear Eunyoung Kim:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. You have also been granted the requested waiver of written documentation of informed consent. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies

Your application will expire on May 17, 2017. If your research will continue beyond this date, complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, complete the Modification of an Approved Protocol Form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, complete the appropriate portions of the IRB Request for Study Closure Form.

Please use reproductions of the IRB approved stamped consent forms to provide to your participants.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,

[Signature]