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The role of year-round fan engagement: A new approach to sport fan behavior

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THE ROLE OF YEAR-ROUND FAN ENGAGEMENT:

A NEW APPROACH TO SPORT FAN BEHAVIOR

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ABSTRACT

Fan engagement, the substantial psychological connectedness to a specific club, team, or sport itself, is in a state of rapid transformation due to the growth of digital media. For sport organizations, managing fan engagement throughout the year is important to maximizing team revenues and sponsors' interests. While fans consume sports differently depending on the season, the focus has been primarily on fan behavior during the in-season in the sport management literature. Thus, the purposes of this study were to (1) provide a conceptual framework of year-round fan engagement by applying the season distinction approach, (2) establish the scale of off-season fan engagement, and (3) examine the effects of various influences on off-season fan engagement and its outcomes related to sport consumption. Based on the literature review, the conceptual framework was developed that comprises two major parts—the antecedents and the outcomes of off-season fan engagement. In a pilot study, a scale of off-season fan engagement was developed through a multi-stage methodology that combines two qualitative, including online focus group (n = 28) and online expert survey (n = 10) and quantitative studies, including a confirmatory factor analysis (CFA; n = 244) and model comparison. In the main study, an online survey questionnaire was developed and collected data from 490 research participants. After evaluating the measurement model through a CFA, the direct relationships among seven constructs (i.e., informativeness value, entertainment value, source credibility, attitude, off-season fan engagement, intention to attend games, intention to consume sports media) were

examined using a structural equation modeling approach. The moderating effects of type of social media use and team identification in the hypothesized model were examined. The first-order scale of off-season fan engagement consisting of 12-item was developed in the pilot study. In the main study, the measurement model showed an acceptable model fit (S-B $\chi^2(df)$ = 1696.713 (815), $p < .001$, robust CFI = .93, TLI = .93, RMSEA = .05), and all values regarding average variance extracted and composite reliability were above the threshold. The results of the hypothesized model (S-B $\chi^2(df)$ = 1921.528 (576), $p < .001$, robust CFI = .90, TLI = .90, RMSEA = .06) indicated that a total of 12 direct paths were statistically significant. Regarding the moderating effects, there were significant interaction effects of type of social media use between source credibility and attitude as well as team identification between attitude and off-season fan engagement. The findings further advance knowledge of fan behavior through the empirical evidence related to year-round fan engagement and the newly developed scale. For the sport industry, this study helps practitioners in sport organizations by providing guidelines on how to manage their fan engagement throughout the year.

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CHAPTER I

INTRODUCTION

Fan engagement is in a state of rapid transformation, but this phenomenon—which helps sport consumers of all generations engage with teams and athletes in new and innovative ways—is being fractured by the sport media landscape (Booton, 2020). For example, the dominance of television is declining, thereby compelling sport organizations to provide multipoint channels from which to capture the attention of fans. Winning games is one way to attract these individuals, but this is not the only one (Corio, 2014). Sports organizations should be aware of the current behavior of sports fans with regard to viewing (Wann & James, 2018). These behaviors include engagement with sports through not only the main device (e.g., television) but also additional channels (e.g., second screens; Cunningham & Eastin, 2017) simultaneously. Sport fans utilize mobile devices to listen to commentary, review highlights, and share live stream videos with others on social media platforms, even when they are in the stadium. Apart from exhibiting such behaviors during the in-season period, sport consumers are exposed to media content during the off-season. For example, they tend to consume behind-the-scenes content and exclusive information about sport teams through diverse social media (Thompson, Martin, Gee, & Geurin, 2017). The growth of digital media and related technologies has afforded sport organizations the opportunity to keep in touch with their fans via a variety of platforms throughout a given year.

From the perspective of sport organizations, fan engagement is critical for maximizing team revenues, sponsorship interest, and media attractiveness (Cortsen, 2017). Fan engagement refers to the substantial psychological connectedness of a spectator to a specific club, team, or sport itself (Yoshida, Gordon, Nakazawa, & Biscaia, 2014). It enables sport organizations to strengthen existing fan relationships and provides opportunities to gain new supporters. Considering the importance of maintaining and augmenting fan engagement levels, sport organizations should endeavor to identify how fans can be encouraged to keep engaging with their favorite franchises even during the off-season. While there are no regular sporting events, sport fans continue to consume sport through a variety of channels (e.g., watching legend games, predicting next season). Given that maintaining the level of fan engagement is challenging, in particular, during the off-season (Meng, Stavros, & Westberg, 2015), it is necessary to investigate how to effectively manage this during this period.

During the off-season, sport fans consume sport-related content primarily in an online environment (Achen, Kaczorowski, Horsmann, & Ketzler, 2018). Sport organizations, therefore, need to understand how to use social media content to reach fans and encourage their favorable attitudes towards sports teams. Attitudes are formed toward a certain object on the basis of the quality of content and the credibility of sources, as maintained by the elaboration likelihood model (ELM; Petty & Cacioppo, 1983). According to the ELM, attitude formation is induced either through a central route or a peripheral route, depending on individuals' state of elaboration likelihood. In other words, the provision of quality content by sport organizations as well as the establishment of credibility affect the formation of positive attitudes among fans and the development of relationships with them (Abeza, O'Reilly, & Reid, 2013). Although researchers have highlighted the importance of sport-related content to understand fans behaviors in online

environments (e.g., Achen, 2015; Seo & Green, 2008), few attempts have been made to focus on content during the off-season. Considering that sport-related content is classified into sporting, merchandise, charitable content (Kim & Hull, 2017), and the proportion of these content varies by the season, it is necessary to consider the concept of season distinction to shed light on sport consumers' off-season behaviors in relation to online environments.

Achen et al. (2018) proposed that providing online content in the off-season contributes to strengthening engagement with sport organizations. Enhanced engagement subsequently leads to a higher level of fan engagement and advances improvements to behavioral intentions, including the intention to attend events in stadiums, view sport events, and purchase licensed merchandise (Santos, Correia, Biscaia, & Pegoraro, 2018). According to a recent sport fan survey conducted by Deloitte (2020), more than 60% of respondents agreed that having a great year-round experience is likely to increase their engagement with a team in an upcoming season, and 55% concurred that such an experience increases the likelihood of attending spring events in the future. Given that fan engagement in a previous season may affect that in the succeeding season, an important requirement is to understand off-season fan engagement on the basis of season distinction to avoid lapses in the engagement process.

1.1. Statement of the Problem

The concept of engagement is not new, but its importance has only recently been highlighted in sport fields (e.g., Smith & Westerbeek, 2010; Vale & Fernandes, 2018; Yoshida et al., 2014). Smith and Westerbeek (2010) highlighted the concept of engagement in the study of the future of sports consumption. They predicted that advances in media technology would increase fan engagement and promote integration with sports. Previous studies on fan

engagement have focused mainly on customer-based fan engagement (e.g., Vale & Fernandes, 2018; Yoshida et al., 2014). In particular, explorations grounded in sport consumers' perspectives have been devoted to fan motivation, positive affect, and team identification as antecedents of fan engagement. However, enhancing individuals' engagement also requires a consideration of firm-based factors, such as the provision of quality services (Prentice, Wang, & Loureiro, 2019). For example, service quality is widely acknowledged as a driver of customer satisfaction and behavior intention (Biscaia, Yoshida, & Kim, 2021; Theodorakis, Kaplanidou, & Karabaxoglou, 2015). With an individual customer's evaluation of firm-based factors, the overall attitude toward an organization can be identified (Walsh & Beatty, 2007). Although a few sport management scholars have concentrated on firm-based factors (e.g., Jones, Byon, & Huang, 2019), there is little empirical evidence of applying a season distinction approach to investigating fan engagement. Considering that the season segment reflects the uniqueness of sport fields and impacts fans' behaviors, it is impossible to illuminate the issue of how fans can be encouraged to persistently engage with sport organizations, without considering the season-distinction approach.

To measure fans' engagement levels, Yoshida et al. (2014) developed the fan engagement scale (FES), which revolves around sport consumers' extra-role behaviors in non-transactional exchanges (e.g., helping team management, helping other fans, helping a sport team). They have only focused on capturing fan engagement in an offline context instead of online, which is an important avenue in which sport organizations can interact and build relationships with devotees (Filo, Lock, & Karg, 2015). Santos and colleagues (2018) proposed a scale of fan engagement through a particular platform (i.e., social network services), including fan-to-fan relationships, team-to-fan relationships, and fan co-creation, it focused on (i.e., SNS). Comprehending off-

season fan engagement necessitates examinations of sport consumers' behaviors across a range of media platforms.

In early 2020, sport leagues were stopped as most countries banned public gatherings and shut down all non-essential industries in order to prevent the spread of the coronavirus (Majumdar & Naha, 2020). The COVID-19 pandemic has influenced sport organizations to communicate with their fans in online environments. This absence of sporting events is consistent with the characteristics of the off-season and enlightens the importance of sport organizations on how to manage their fans during the off-season.

1.2. Purpose

To resolve the problems identified above, this dissertation is directed toward a three-fold purpose and guided by three research questions. First, a conceptual framework for year-round fan engagement is developed using the season distinction approach. The integration of literature was designed to develop new associations among constructs relevant to fan engagement. The framework also offers propositions regarding previously untested construct (i.e., off-season fan engagement). To this framework, the ELM was applied to determine potential antecedents of off-season fan engagement. These procedures are intended to describe the mechanism behind the enhancement of fan engagement during the off-season and its influence on fan intentions for a succeeding season. The corresponding research question (RQ) is as follows:

RQ1: How does the season distinction approach apply to understanding fan engagement in the field of sport?

Second, given that sport consumers' behaviors are being diversified (Wann & James, 2018), efforts to develop or modify a scale are needed to accurately measure recently emerging

behaviors. From this point of view, a necessary task is to establish a scale that measures off-season fan engagement on the basis of the three dimensions of the proposed conceptual framework. This dissertation is intended to develop a scale of off-season fan engagement by adopting quantitative and qualitative approaches. Guiding this purpose is the second RQ:

RQ2: How can off-season fan engagement be measured in the sport setting?

Third, this study aligns with previous research on consumer engagement in the business field in terms of the consideration of engagement as a sustained behavior beyond a one-time behavior (Brodie, Ilic, Juric, & Hollebeek, 2013). Therefore, various factors that possibly influence off-season fan engagement are explored in this work. In applying the season distinction approach, as well, such an engagement is viewed as a bridge to engagement among fans in a succeeding season. This study carried out structural equation modeling (SEM) to examine the relationships among content value, source credibility, attitude, off-season fan engagement, the intention to attend games, and the intention to consume sports media in a subsequent season. The guiding question for this task is presented below.

RQ3: What is the role of off-season fan engagement in sport consumption in a succeeding season?

In summary, this dissertation is aimed at (1) proposing a conceptual framework of fan engagement that encompasses both predictors and outcomes of off-season fan engagement. The development is advanced through the incorporation of the ELM into the framework. It is also intended to (2) explore and develop a scale of off-season fan engagement and (3) examine the relationships among predictors (i.e., content value, source credibility, attitude) and outcomes

(i.e., intention to consume sport in a succeeding season) of off-season fan engagement. For achieving the first purpose, the researcher elucidates the concept of year-round fan engagement on the basis of the literature. For the second and third purpose, a new off-season fan engagement scale is developed, and the research model that incorporates them is empirically investigated.

1.3. Significance

This study is expected to contribute not only to the academic study of sport marketing and communication but also to sport practice in a number of ways. First, it helps drive theoretical advances as regards the uniqueness of sport. Cunningham (2013) emphasized the necessity of exploring new directions in constructing sport-specific theories. In attempting to apply season distinction to fan engagement, the current work expands the scope of sport fan behaviors. Rather than simply applying models built by general marketing scholars (e.g., consumers' engagement with brand-related social media content; Schininski, Christodoulides, & Dabrowski, 2016), this current study targets a deeper understanding of the aforementioned behaviors.

Second, the present study has potential contributions to the literature on sport consumer behavior through its incorporation of the ELM into the concept of fan engagement. This approach is an attempt to elucidate the triggers of off-season fan engagement beyond individual sport consumers' viewpoints. Through a content provider-based (i.e., sport organizations) approach, this research explains the formation of favorable attitudes from fans via the online communication process and discusses its implications for management scholarship.

Third, practitioners in sport fields can take an interest in this study for its practical implications. The triggers of attitude and off-season fan engagement can bring salient contributions to sport organizations. In particular, can refer to the results of this work when they

develop off-season marketing strategies depending on the type of sport fans (e.g., highly engaged fans or casual fans). Furthermore, by illuminating the relationship between off-season engagement and outcomes, this study provides seasonal guidance to sport organizations. In summary, this dissertation is anticipated to make numerous potential contributions to positivity in the sport consumer behavior literature, sport communication, and the overall field of sport management.

1.4. Organization

The remainder of the dissertation is organized as follows. Chapter 2, under the umbrella of engagement, presents the literature review intended to enable the construction of a more comprehensive theoretical model of antecedents and outcomes of off-season fan engagement. The chapter begins with a review of studies on consumer engagement, followed by a review of research on engagement in the sport field. It also discusses the existing literature on various possible antecedents of off-season fan engagement on the basis of the ELM, with a focus on sport organizations' provision of content. Outcomes including the intention to consume sport and intention to consume sports media are described with guidance from the proposed theoretical model. Chapter 3 provides the testable research model to be examined for the verification of the research hypotheses. With the existing literature as grounding, hypotheses regarding antecedents of off-season fan engagement and its outcomes are developed. Moreover, the moderating roles of social media use and team identification are tested. Statistical methods, participant sampling, measurements, and data analysis used in both the pilot and this study are discussed in Chapter 4. Through a series of data analyses, the outcomes of data analysis for both the pilot and main study

are provided in Chapter 5. Findings, implications, limitations, and future research are discussed in Chapter 6 in order to reach a conclusion of this study based on the results of data analysis.

CHAPTER II

LITERATURE REVIEW

One of the main purposes of this dissertation is to provide a complete picture of year-round fan engagement, including various antecedents and outcomes of the off-season fan engagement. Fan engagement goes beyond a static status and represents a progressive psychological connection to a team (Yoshida et al., 2014). With off-season fan engagement as a central mechanism in year-round fan engagement, this chapter describes the antecedents and the outcomes of off-season fan engagement by integrating previous literature.

This chapter begins with an overview of the concept of consumer engagement in the business field, which is the root of fan engagement. Next, a conceptual framework for year-round fan engagement is provided, followed by an overview of off-season fan engagement on the basis of theoreitical considerations. There are various predictors utilized in determining how off-season fan engagement is developed according to the ELM (Petty & Cacioppo, 1983), consisting of informativeness value, entertainment value, source credibility, and attitude. A discussion of how each factor impacts off-season fan engagement has proceeded by reviewing potential evidence linking proposed antecedents to off-season fan engagement. In addition, outcomes of off-season fan engagement are also included. Finally, how social media use and team identification have moderating effects in each relationship between source credibility and attitude as well as attitude and off-season fan engagement are discussed, respectively.

2.1. Consumer Engagement

2.1.1. Defining Consumer Engagement

Marketing research on engagement has emerged in the last decade, whereas seminal research on this topic had started as early as the early nineties (e.g., Kahn, 1990) in other fields of social sciences. Gambetti and Graffigna (2010, p. 819) state that "consumer engagement is the only really significant concept when considering engagement from the marketing perspective." Bowden (2009), in particular, defined consumer engagement as a higher-order phenomenon overarching a series of engagement-building steps. Brodie and colleagues (2011) defined consumer engagement as a psychological state created by interacting with focal agents/objects (e.g., brands) in a focal service relationship.

Consumer engagement manages relationships with objects and plays a vital role as a predecessor and or outcome of an iterative process. The iterative nature of the relationship process implies consumer engagement's relational consequences, including loyalty/satisfaction, empowerment, connection/emotional bonds, and trust/commitment (see Figure 1). Consumer engagement, thus, may act as antecedents to subsequent interactive, co-creative experiences between the customer and a focal engagement object (Brodie et al., 2013).

Consumer engagement has been considered as an overarching construct capturing non-transactional customer behavior. According to Verhoef (2010), in a networked society where people can interact with others, non-transactional behavior becomes more important than transactional behavior. In particular, word of mouth (WOM) as a form of non-transactional behavior has gained sufficient attention in the existing literature (e.g., Villanueva, Yoo, & Hanssens, 2008). Research on consumer behavior, therefore, requires the view that consumer engagement is a crucial research stream.

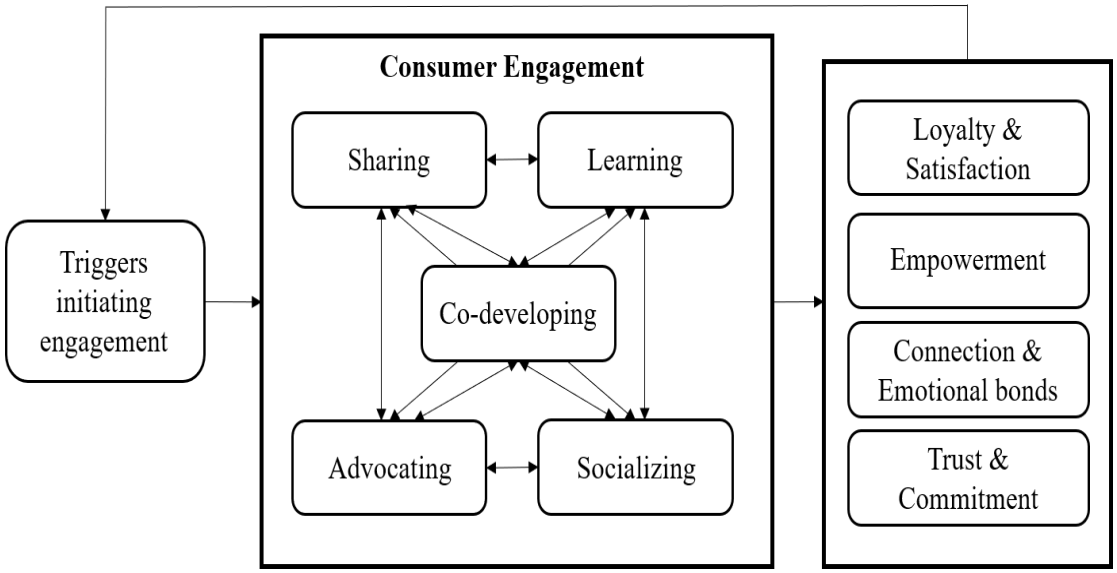

Figure 1

Process of Engagement in Brodie et al. (2013)

2.1.2. Characteristics of Consumer Engagement

Engagement involves both a subject (i.e., the engaged entity) and a partner (i.e., the focus or object of engagement). Research on consumer engagement generally agrees that the relationship that forms the basis of engagement involves an actor or subject of engagement, typically the individual customer (e.g., Bowden, 2009) or consumer (e.g., Calder, Isaac, & Malthouse, 2016). Although the initiator of engagement can be the company, through specific offerings or activities, the person whose engagement matters to marketing researchers and practitioners alike is an individual customer (Vivek, Beatty, & Morgan, 2012).

Consumer engagement can only happen if you have a relationship partner to interact with and use as an engagement target. Previous studies refer to engagement ‘partner,’ ‘focuses,’ or

‘objects’ as reflective of the interactive role of this engagement (Vivek et al., 2012). Extending beyond the product as engagement partner, Van Doorn et al. (2010) contend that the partner can be either the firm or the brand, so long as the relationship goes beyond the transaction. Engagement objects for consumers include types of media (Calder, Malthouse, & Schaedel, 2009) or pieces of advertising/content (Phillips & McQuarrie, 2010).

It is worth pointing out that most studies concentrate on one partner of engagement, and there are very few studies that acknowledge multiple partners of engagement. Gambetti and Grafigna (2010) provides a review of engagement and recognize different engagement partners, supporting the idea that engagement can go in different directions. Brodie et al. (2011) and Vivek et al. (2012) support this premise and evidence it with qualitative data. The former study focuses on engagement with a brand and other community members, while the latter includes all organizational offerings or activities as potential engagement partners. Table 1 provides an overview of the studies in marketing that have focused on consumer engagement.

2.1.3. Measurement of Consumer Engagement

Consumer engagement is inherently social and approached as involving a subject and a partner (Dessart, 2015). As a result, consumer engagement has been tried to be measured by considering reference to both a subject and an object of engagement. To measure the level of consumer engagement, Vivek and colleagues (2014) developed the scale of customer engagement (CUE). Based on the integration of marketing literature, they defined a three-multidimensional conceptualization of the construct and validated the 10-item scale. In this scale, consumer engagement consists of three constructs, including conscious attention, enthused participation, and social connection (Vivek et al., 2014). In another attempt to measure consumer

engagement, Hollbeek and colleagues (2014) considered brand relationships. They suggested the consumer brand engagement concept by reflecting the nature of consumer's interactivity and provided the scale of consumer brand engagement (CBE). The CBE consists of 10-item under the three dimensions, such as cognitive processing, affection, and activation.

Table 1 illustrates an overview of previous research that has focused on the consumer engagement scale, consisting of a multi-dimension structure. Only quantitative papers were considered in this table listing, including detailed authors, year, and names of sub-dimensions.

Table 1

Research on Consumer Engagement Scale

Scale	Authors (Year)	Dimensions
Customer Engagement	Vivek et al. (2014)	Conscious attention, enthused participation, social connection
Consumer Brand Engagement	Hollebeek et al. (2014)	Cognitive processing, affection, activation
Consumer engagement	Calder et al. (2013)	Discovery, social, transportation
Audience Engagement	Scott & Craig-Lees (2010)	Pleasure, arousal, cognitive effort

2.1.4. Online Consumer Engagement

The development of technology has supported a new dimension of consumer engagement with partners on social media (Li & Bernoff, 2011). Online environments (e.g., blogs, media-

sharing sites, social networking sites) have significantly extended the manner and depth of the interaction between consumers and partners (Christodoulides, 2009). Previous research has proposed a set of attributes related to online platforms (e.g., feedback, review) that increase consumer engagement (O'Brien & Toms, 2008). The interactive nature of social media has influenced consumers to engage with partners because of their potential to improve relationships with other consumers (Sashi, 2012). Strauss and Frost (2014) showed that the potential resulting from user-friendly real-time access to online information helps increase consumption by encouraging active consumer behavior.

Libai and colleagues (2010) stated customer-to-customer interactions, taking into account the differences between online and offline. In particular, they highlighted customer-to-customer interactions that have become more important because of the growth of new media (e.g., social media). The framework of consumers' online brand-related activities (COBRAs) developed by Muntinga, Moorman, and Smit (2011) serves as a background to capture social media behavior. These efforts to incorporate online consumer engagement into general consumer engagement are not surprising given the nature of the concept itself and provides a fertile basis for further exploration.

2.1.5. Measurement of Online Consumer Engagement

In an online environment, consumer interaction experiences are as important as offline experiences with a brand (Prahalad & Ramaswamy, 2004). Consumers use a variety of tools and resources to communicate with brands in an online environment. Brand-related activities in a virtual space can entail different levels of engagement, which are consumption, contribution, and creation (Muntinga et al., 2011). To measure these three levels of consumer engagement in

online environments, Schivinski and colleagues (2016) established a scale, namely consumer engagement with brand-related social media content (CEBSC). These three dimensions capture lower to higher levels of brand-related social-media engagement and are broadly used to quantifying consumers' behavior on social media. The CEBSC scale promotes theoretical development in marketing, advertising, branding, consumer behavior, and other fields of study (e.g., Cheung, Pires, Rosenberger, & De Oliveira, 2020). The concept of consumer engagement has influenced the field of sport management, and the importance of fan engagement has been highlighted by researchers (e.g., Yoshida et al., 2014).

2.2. Fan Engagement

Within the last decade, the concept of fan engagement in the field of sport management has emerged as a way for federations, associations, leagues, and clubs to strengthen their relationships with supporters. The development and maintenance of fanatic fans are essential to the success of sport organizations (Biscaia, Hedlund, Dickson, & Naylor, 2018). Hedlund (2014) stated that highly engaged fans have a higher attendance rate, watch more games, and purchase a number of team products, which can be defined as self-interested tasks. A point to be considered here is that such fans also behave to benefit their favorite sport teams and other fans. In particular, they positively referral their teams (e.g., WOM), provide suggestions for product improvement (de Ruyter & Wetzels, 2000; Swanson, Gwinner, Larson, & Janda, 2003), share knowledge about a team with other fans, and help other fans in fan communities (Dietz-Uhler & Murrell, 1999; Fisher & Wakefield, 1998).

To explain fans' commitment to sport teams, many useful constructs have been developed in the sport management literature, including team identification (Wann &

Branscombe, 1990), team identity (Heere, James, Yoshida, & Scremin, 2011), fan loyalty (Funk & James, 2001), psychological commitment to the team (Mahony, Madrigal, & Howard, 2000), psychological connection to the team (James, Kolbe, & Trail, 2002), team attachment (Mahony, Nakazawa, Funk, James, & Gladden, 2002), spectator-based brand equity (Ross, Russell, & Bang, 2008), and consumer-team relationship quality (Kim, Trail, & Ko, 2011). However, previous research has focused on the attitudinal aspect of sport fans and has largely ignored fans' unique behavioral responses. Therefore, adopting fan engagement is essential in providing a complete picture of sport fans' behavior throughout the year. To better understand sports fan behavior from a holistic perspective, a conceptual model framework of year-round fan engagement is proposed. Figure 2 depicts how sport fans consume sport throughout the year in online environments, in particular through off-season fan engagement as a central construct. Predictors of off-season fan engagement are categorized by three entities: online content(e.g., values, quality), content providers (e.g., trustworthiness, competent), and external elements (e.g., past season record, mega-sporting events). During the off-season, fans are affected by these constructs and lead to sport consumption behaviors, such as game attendance and media subscription. It is worth noting that this conceptual model deals with the continuity of the engagement. In other words, once engaged, fans continue to engage with their teams the entire year through a cycle of in-season and off-season.

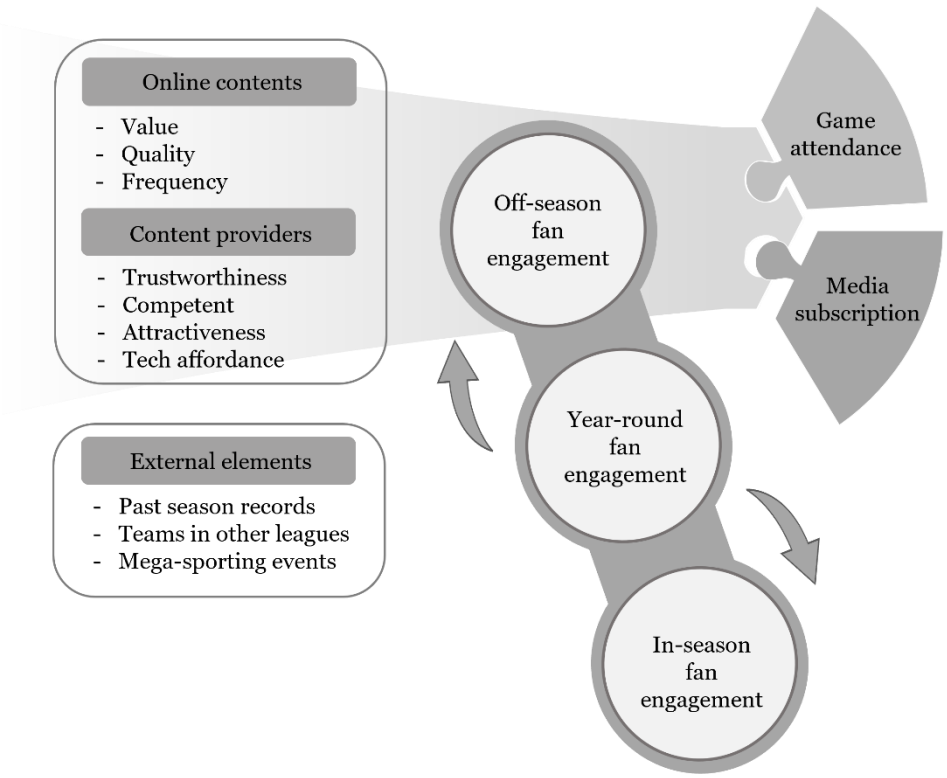

Figure 2

Conceptual Framework of Year-Round Fan Engagement

2.2.1. Defining Fan Engagement

The term engagement is widely used in sport management literature to describe the level of sport fandom and the unique behaviors of sport fans. A behavioral approach to conceptualizing sport consumer engagement has been popularly used (e.g., supporting a fan community; Fisher & Wakefield, 1998; sharing knowledge about a game; Westerbeek & Shilbury, 2003; displaying of sport fandom; Derbaix & Decrop, 2011). Fan engagement can be defined as "a fan engagement as a sport consumer's extrarole behaviors in non-transactional exchanges to benefit his or her favorite sport team, the team's management, and other fans" (Yoshida et al., 2014, p. 403). Based on this definition of fan engagement, four types of

engagement behavior were identified: sport-related behaviors, relationship-building behaviors, impression-management behaviors, and fan-engagement behaviors. By using traditional measurements of sport consumers' behaviors (e.g., repurchasing, media consumption), transactional behaviors are captured, including sport-related (e.g., attending, watching) or relational (e.g., fan loyalty program participation) behaviors. Further, fan engagement covers sport consumers' prosocial behavior that benefits not only sport teams but also team management and other fans in non-transactional exchanges, such as supporting a fan community and positive word-of-mouth (Ahearne, Bhattacharya, & Gruen, 2005; Dholakia, Blazevic, Wiertz, & Algesheimer, 2009).

Considering that fan engagement is an effort-intensive and persistent behavior (Yoshida et al., 2014), the concept of fan engagement is consistent with research on customer engagement in the business field (Brodie et al., 2011). Because of stable and persistent fan behaviors, sport organizations can not only improve the atmosphere at sporting events and team performance but also increase game ticket and merchandising sales (Yi & Gong, 2013). Focusing on nontransactional behavior, the fan engagement scale (FES) was developed by Yoshida and colleagues (2014). This scale consists of three constructs, namely, management cooperation, prosocial behavior, and performance tolerance. Although the FES is an important scale in that it was the first attempt to measure the level of fan engagement, but there are some limitations. First, because the FES was established based on the sport fans' extra-role behaviors (e.g., helping team management), it lacks applicability of the findings of different settings, including in-role behaviors (e.g., self-oriented behaviors). Second, the FES is suitable for measuring fans' offline engagement behaviors rather than online engagement behaviors. Examples of the FES are "I wear apparel which represents the fans of (team name)…," "I display the logo of (team name) on

my clothing…" Lastly, while the FES takes into account the importance of persistent behaviors, most of the FES's items focus solely on fans' in-season behaviors, excluding off-season behaviors. The items include the results of the game, such as "even if (team name) do not perform well."

2.2.2. Off-season Fan Engagement

After sports season is over, sport organizations begin to play off-field management to prepare well for the next season. From sport teams' perspectives, this pause plays an important role in two ways. First, teams can strengthen the team's performance through pre-season training and trading of athletes and coaching staff. Second, teams can expand the scope of fan range with new fans who switch their favorite team from another team in the same league. When being exposed to various sports-related news (e.g., new roasters, free agents), fans' interest in the upcoming season increases (Brand, 2015).

From this viewpoint, considering fans' off-season behaviors is as crucial as understanding their behaviors in the coming season in order to stably manage sport teams (Achen et al., 2018). For fans, there is no off-season with the proliferation of sports channels, radio stations, and individual podcasts. A variety of forms of sport consumption are available these days, and these behaviors related to off-season fan engagement serve as a vehicle for sport organizations to stay connected with their fans. In other words, if the desired content is not provided, their fan engagement levels may be decreased at this period and result in team switching. In addition, given that fans mostly consume sport-related content through online environments during the off-season, capturing their specific behaviors should consider by integrating fan behaviors in online environments, along with offline behaviors.

2.2.3. Online Fan Behavior

To understand people's engagement in online environments, Mutinga et al. (2011) suggested COBRAs into three hierarchical dimensions: consumption, contribution, and creation. The motivations and consequences of these three dimensions were identified from previous studies (e.g., information, social interaction, entertainment, remuneration; Buzeta, Pelsmacker, & Dens, 2020). In this line, online fan engagement can be characterized according to this three-dimension.

2.2.3.1. Consumption

The consumption dimension is rooted in the business literature and includes consumer participation in online communities (e.g., Dholakia, Bagozzi & Pearo, 2004; Muniz & O'Guinn, 2001). This type of consumer online brand-related activity program refers to consumers who passively consume brand-related media without engaging with a minimum level of engagement (Muntinga et al., 2011; Shao, 2009). Consumption of brand-related content includes both company-created and user-created media, so no distinction between sources of communication is expected. This is the most frequent type of online brand-related activity among consumers (Muntinga et al., 2011). The examples of behaviors in the consumption dimension are below.

- Watching sporting events (e.g., live games, legend games)
- Reading team related articles/news (e.g., trading, injuries)
- Searching for team-related contents (e.g., MVP, spring training)
- Reading non-game related news (e.g., community involvement stories)
- Following social media accounts

2.2.3.2. Contribution

The contributing dimension includes both peer-to-peer and peer-to-content interactions about brands (Shao, 2009). This dimension reflects consumers' contribution to content through participation in media previously created by either a company or another individual. Because of its interactive nature, the contributing dimension has gained popularity among practitioners and brand researchers (Dickinson-Delaporte & Kerr, 2014). Research on this type of consumer online brand-related activity can be traced back to studies on brand-related electronic word of mouth (e.g., Dellarocas, Zhang, & Awad, 2007; Hung & Li, 2007) and online customer reviews (e.g., Zhu & Zhang, 2010). In addition, researchers have given attention to clicking a like button (e.g., Wallace, Buil, De Chernatony, & Hogan, 2014) or and sharing content on social media (e.g., Craig, Greene, & Versaci, 2015). Below are some instances of behaviors in the contribution dimension.

- Subscribing to the channels (e.g., YouTube)
- 'Like' online contents
- Sharing online contents (e.g., retweet)
- Participating in online fan communities (e.g., responding to other fans)

2.2.3.3. Creation

The creation dimension involves consumers' creation and publication of content. Research on consumer engagement in the creation of content is grounded in product co-creation (e.g., Fuller, Muhlbacher, Matzler, & Jawecki, 2009) and consumer empowerment (e.g., Wright, Newman, & Dennis, 2006). Also, scholars have focused on user-generated content (e.g., Christodoulides, Jevons, & Bonhomme, 2012; Schivinski & Dabrowski, 2015). This is because

content generated by consumers can be a stimulus to further consumption and other peer contributions. The following are some instances of behaviors in the creation dimension.

- Uploading team-related contents (e.g., Top 10 best plays)
- Streaming team-related content (e.g., live streaming)
- Running fan pages on social media platforms

2.2.3. Offline Fan Behavior

In the off-season, fans mainly consume sports in online environments, but they also consume sports in offline environments. As in the in-season, fans maintain relationships with their favorite teams through self-oriented behaviors (e.g., purchasing merchandise, wearing team jerseys, touring stadiums; Kim et al., 2011) and/or social interaction behaviors (e.g., joining fan club, attending fan events, communicating with their acquaintances; Yoshida, Gordon, James, & Heere, 2015).

2.3. Elaboration likelihood model

The ELM provides a theoretical underpinning for understanding the process of informational influence based on the effects of persuasion (Petty & Cacioppo, 1986). It provides a theoretical framework for understanding how people handle convincing messages. In ELM, the elaboration process has been described to the extent to which people think about the arguments contained in the message (i.e., information) and to the degree to which they form attitudes toward a provider (Petty & Cacioppo, 1986). According to the ELM, there are two paths through which convincing messages can be processed: the central path and the peripheral path. The central path entails a high level of sophistication, and the surrounding path entails a low level of

sophistication (Kitchen, Kerr, Schultz, McColl, & Pals, 2014). When the recipient processes the message through a central route, the issues presented in the message are carefully considered and the merits of the claim are evaluated. In these situations, the recipient will put more effort into evaluating the message through additional cognitive processing.

Conversely, the peripheral route requires less cognitive work. Individuals use simple heuristic clues or informative indicators, such as source credibility, to assess the authenticity of a message. Theoretically, individuals can elaborate information through either a central or peripheral path. Practically, however, they use both paths to elaborate information at a moderate level (Sussman & Siegal, 2003). Thus, the assessment of the information can be based on the central and peripheral routes.

In addition, ELM suggests that the degree of sophistication through the central or peripheral path depends on an individual's abilities and motivations. For example, when an individual is cultivated by a variety of factors to have the motivation and ability to handle arguments and information thoughtfully, the likelihood of elaboration is higher, and the central route of persuasion becomes standing out. On the other hand, when elaboration is at the low end, the peripheral route to persuasion stands out (Cacioppo & Petty, 1984).

The model is most often used by advertising researchers when studying attitudinal change, which is assumed to be the process by which externally generated persuasion occurs (Kitchen et al., 2014). The ELM suggests that variables related to the message, the source, and the recipient affect the degree of a message’s influence (Petty & Cacciopo, 1981). Research on message-related and source-related information adoption literature has used diverse variables, including content value and source credibility, to elaborate the ELM. According to ELM, these

variables may take on roles as either central (i.e., content value) or peripheral cues (i.e., source credibility) to assess the content and form a favorable attitude toward content.

The ELM has been applied to understand how sport organizations communicate with people and their information process (e.g., Park, Turner, & Pastore, 2008). In sport settings, information about favorite teams is considered as a critical cue for sport consumption (Funk, Haugtvedt, & Howard, 2000). Therefore, integrating the ELM into fan engagement may serve as a key to better understanding fan behaviors. Based on the ELM, content value belongs to the online content and source credibility belongs to the content providers (see Figure 2).

2.3.1. Central Route: Content Value

Content value has been consistently identified as a major criterion in the persuasion and communication literature (Slater & Rouner, 1996). In ELM, content value refers to "the audience's subjective perception of the arguments in the persuasive message as strong and cogent on the one hand versus weak and specious on the other" (Petty & Caciopppo, 1981, p. 264). As a central cue, content value determines one's attitude towards a message primarily through careful deliberation about the merits of the content presented. Ducoffe (1996) identified content value in the context of advertising as consisting of three components: informativeness, entertainment, and irritation. Informativeness refers to the role of content that provides information about a particular subject (e.g., brand) and alternatives, which can facilitate individuals to make informed decisions and increase consumption. Entertainment value demonstrates the capabilities of content to entertain people (McQuail, 1983). Irritation triggers an adverse reaction, such as annoying or distracting or merely being offensive.

With the growth of the media environment in sport industry (Kim & Kim, 2020), the massive quantity, diversity, and accessibility of online content have contributed to fans engaging with sport organizations. Thus, the importance of providing content that meets the needs of fans is underscored. From this viewpoint, content value can contribute to creating a favorable attitude by providing informative information and entertaining content for sport organizations. For example, providing up-to-date new and reliable information help not only reinforce ongoing fan engagement with their fans but also attract new potential fans. Therefore, these two types of content values adapted this study to understand how fans form their attitude toward sport teams.

2.3.2. Peripheral Route: Source Credibility

As a peripheral cue in the ELM literature, source credibility has been widely used (Spence, Lachlan, Westerman, & Spates, 2013). Source credibility is defined by Ohanian (1990, p. 41) as "a term commonly used to imply a communicator's positive characteristics that affect the receiver's acceptance of a message." In the communication discipline, source credibility has been considered as one of the most crucial factors that affects peoples' attitudes, behavioral intentions (Haley, 1996). The credibility of the source is not the only factor that affects an individual's attitude and behavior. However, if an individual does not trust the source, the information elaboration process may not be complete (Hu, 2015).

Source credibility has been considered as a multidimensional construct. Ohanian (1990) suggested source credibility's three dimensions: trustworthiness, expertise, and attractiveness. Several previous researchers have argued that if the object of the source is an organization, the source credibility's dimension should be changed differently from that of the individual (e.g., a salesperson). Specifically, the dimensions of trustworthiness and expertise belong to the

organization’s source credibility as well as the individual’s source credibility. However, in the organization’s source credibility, the dimension of attractiveness needs to be replaced with attribute (Hu, 2015). Because attractiveness primarily refers to an individual's physical attributes and personality, it is more logical to use the attribute dimension to measure an organization’s source credibility. This study focuses on sport organizations as content providers rather than individual users; therefore, attribute was considered. In addition, with the growth of technology, researchers have considered technological affordance as another new dimension of an organization’s source credibility. Considering that this study concentrated more on online environments to explore fans’ formation of attitudes toward sport organizations, the concept of technological affordance was also adapted, along with three dimensions (i.e., trustworthiness, expertise, attribute).

2.3.3. Attitude

The term attitude represents a hypothetical construct referring to a general and enduring positive or negative feeling towards or evaluative response to some person, object, or issue (Petty & Cacioppo, 1986). Attitudes also represent a learned predisposition with respect to a given object and express some important aspect of one’s personality (Eagly & Chaiken, 1995). An attitude can be formed through direct experiences with an entity or exposure to knowledge and messages (Albarracin, Johnson, & Zanna, 2005), including content value and source credibility.

Attitude-related research in the existing sport literature has focused on measurement of the affective component to examine existing attitudes towards sport and leisure activities (e.g., Mahony & Moorman, 1999; Murrell & Dietz, 1992; Pope & Voges, 2000). Positive–negative continuums have been employed in questionnaires to measure responses about a specific team

(Mahony & Howard, 1998) and corporate sponsors (McDaniel & Heald, 2000). Research on attitude-related in a sport context also has provided a useful starting point to initiate a discussion of the role of attitude toward sport organizations. The theory of planned behavior (Ajzen, 1991) provides an important theoretical foundation for this approach. According to Ajzen (1991), attitudes toward an object play an important role in predicting an individual's behavioral intentions and can influence behavioral responses to an object. Keller (2003) supports the idea that attitude toward the sponsor represents the consumer's overall evaluation of a brand sponsoring an event.

2.4. Outcomes of Off-season Fan Engagement

In developing the year-round framework, it is important to address the influence of off-season fan engagement on various sport consumption behaviors. Two consumption used by sport consumers, namely, game attendance and media consumption, have been widely used as outcome variables (e.g., Choe, Kim, & Cho, 2019; Cunnigham & Kwon, 2003; Mutsuoka, Chelladurai, & Harada, 2003). Based on Kim and Trail's (2010) model of sport consumer behavior, the current study proposes two intention to behavioral aspects of sport consumer: intention to attend games, intention to consume sports media.

2.4.1. Intention to Attend Games

Increasing attendance is one of the most important objectives for sport organizations. In sport management literature, game attendance has been considered as a crucial consumption variable for predicting sport consumer behaviors (Kim & Trail, 2010). Although it has been challenging for researchers to predict actual purchase behavior specific to game attendance

(Chandon, Morwitz, & Reinartz, 2005), researchers have continuously used attendance intentions instead of actual attendance behavior due to the difficulty of measuring both pre-behavior and actual behavior. Diverse factors have been examined as antecedents of intention to attend games. For example, commitment and intimacy were examined as predictors of attendance (Kim et al., 2011), and team loyalty was one of the social psychological factors influencing attendance (Sumino & Harada, 2004). Matsuoka, Chelladurai, & Harada (2003) empirically demonstrated that team identification and satisfaction with the game experiences have significant effect on intention to attend games. This study focuses on the concept of season distinction and tries to find out the role of off-season fan engagement activities as an antecedent of next season game attendance behaviors.

2.4.2. Intention to Consume Sports Media

Changes in the media environment enable sports fans to enjoy the event with their friends or other fans in their home or at the bar without traveling to the host destination; these activities require less time, money, and effort (Devlin & Billings, 2016; Jang, Ko, Wann, & Chang, 2017). Sport organizations have become more and more concerned about the media consumption behavior of their fans (Kim et al., 2011). The reason for this concern is sport consumers' media-related consumption of the team has important implications for the financial success of the organization. In addition, media companies (e.g., ESPN) attempted to facilitate media awareness and visibility to enhance the effect of sponsorship and TV commercials, which lead to the financial success of the sporting events. Based on earlier studies, the present study considers intention to consume sports media as one of the outcomes of off-season fan engagement.

2.5. Social Media Use

The emergence of social media has changed human interaction, and various social media platforms have played a role in search, sharing, and communication (Anand, Gupta & Kwatra, 2013). From an industry perspective, improving communication with customers and developing effective marketing strategies require investigating of social media users' behavior and classifying usage types. Therefore, efforts are being made to understand the different types of social media users and their characteristics. The amount of time spent on social media per day is an important factor for different types of social media users (Casey, 2016). People who use social media for more than three hours a day is called a heavy social media user, between one and two hours is called a medium user.

In addition, the behaviors of social media users vary depending on their types. Shwartz-Asher, Chun, and Adam (2016) analyzed social media user behavior using 160K social media data and examined that heavy social media users create content rather share, while light users share content rather than create. Heavy users tend to be less critical of media content and more friendly toward media sources (Pleshko & Al-Houti, 2012). Considering the influence of media in the context of sport, the type of social media user is a factor that should not be overlooked. The importance of social media use has been highlighted in the field of sport management. For example, a study by Blose, Mack, Pitts, and Xie (2021) investigated the difference between heavy and light social media users in perceiving online advertising of basketball tournaments. According to the results, even if they were exposed to the same advertisement, there was a difference in how they reacted to it depending on social media use. From this viewpoint, the level of fan engagement may vary depending on social media use. In particular, sports fans who

use social media heavily are more likely to engage in online communications with sports organizations and form positive attitudes toward them than fans who use social media lightly.

2.6. Team Identification

Team identification is defined as "a fan's psychological connection to a team and the extent to which the fan views the team as an extension of his or herself" (Wann, Waddill, Polk, & Weaver, 2011, p. 76). Research on team identification began in earnest when Wann and colleagues started a systematic program of investigation in 1990 (Branscombe & Wann, 1992; Wann & Branscombe, 1990). They focused on: spectators' tendency to associate with successful teams and disassociate from unsuccessful ones (Wann & Branscombe, 1990); construct measurement (Wann & Branscombe, 1993); and the formation and continuation of identification (Wann, Tucker, & Schrader, 1996).

There are two areas of consistency that shed light on what team identification has meant in research. First, the definitions refer to a consumer's perception (Fink, Trail, & Anderson, 2002), orientation (Trail, Anderson, & Fink, 2000), knowledge (Tajfel, 1982), or psychological connection to a team (Branscombe & Wann, 1992). Each of these terms implies individual fans' perception of how connected they are to a team. Second, identified individuals have a vested interest in team performances (Gwinner & Swanson, 2003). This implies that highly identified individuals care about the performances of their team in comparison to others. There is some consensus, therefore, that individuals evaluate the status of their team or group in terms of team performance (Heere & James, 2007).

Team identification has been widely suggested as a pivotal construct to capture the fundamentals of the relationship between sport consumers and a team (Trail, Anderson, & Fink,

2005). To comprehend the moderating role of team identification, many scholars have studied in a variety of contexts, including emotional reactions, favorable attitudes, and game attendance. For example, Wann and Branscombe (1992) sought to understand how different levels of team identification can affect the emotional response of sports consumers after victory and defeat. Sport fans with a high level of team identification may experience more negative emotions (e.g., frustration, anger, discouragement) than fans with a lower level of team identification when their favorite team is defeated (Wann, Fahl, Erdmann, & Littleton, 1999). In addition, the relationships between a team's favorable environmental practices and internalization (Inoue & Kent, 2012) and affect gratification and attitude toward sport organizations (Kim & Kim, 2020) were moderated by individual fans' team identification levels. Sport fans with a high level of team identification, in particular, show higher satisfaction levels with sporting games when perceiving the enhanced enjoyment than fans with a low level of team identification.

CHAPTER III

RESEARCH MODEL AND HYPOTHESES

3.1. Proposed Model

The three-fold purpose of this study is to provide a conceptual framework of year-round fan engagement, establish the scale of off-season fan engagement, and empirically examine the effects of various influences on off-season fan engagement as well as investigate the role of off-season fan engagement in increasing sport fans' intention to consume sport in a succeeding season. In the first chapter, three research questions were proposed that explicitly address the purposes of this study:

RQ1: How does the season distinction approach apply to understanding fan engagement in the field of sport?

RQ2: How can off-season fan engagement be measured in the sport setting?

RQ3: What is the role of off-season fan engagement in sport consumption in a succeeding season?

In the second chapter, a conceptual model was described to provide a more complete picture of year-round fan engagement, especially in response to RQ1. The conceptual framework includes possible triggers of attitude, including content value and source credibility, off-season

fan engagement, and outcomes of off-season fan engagement, including intention to attend games and intention to consume sports media. In response to RQ3, the third chapter addresses research hypotheses by proposing testable research models based on literature review.

3.2. Research Hypotheses

Based on the previous chapter, the hypothesized model of this study is developed (see Figure 3). The model consists of three-step relationships between (a) attitude toward sport organizations and its triggers (i.e., informativeness value, entertainment value, source credibility), (b) attitude toward sport organizations and off-season fan engagement, and (c) off-season fan engagement and its outcomes (i.e., intention to attend games, intention to consume sports media).

3.2.1. Triggers of Attitude

The current study applies the ELM to explore the effects of dual-route affecting the attitudes of sport fans toward sport organizations. Specifically, this study examines the impact of content value, as a central route and source credibility, as a peripheral route, on attitude, which further impacts off-season engagement. In terms of content value, Ducoffe (1996) suggested the determinants of content value: informativeness, entertainment, irritation. According to his study,

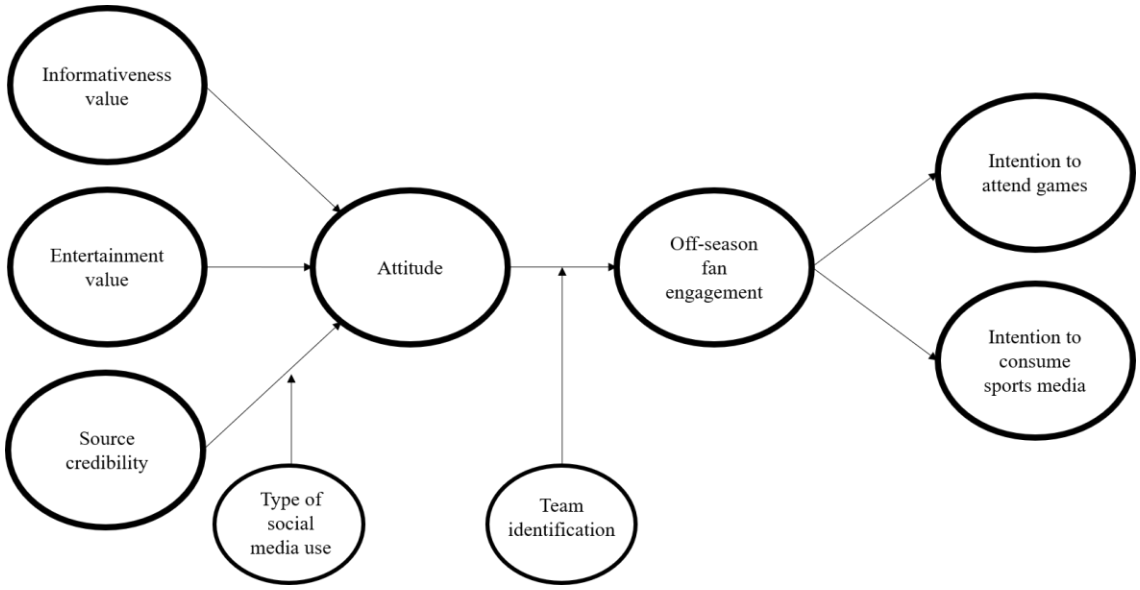

Figure 3

Proposed Research Model

the perceptions of content value predicted the formation of individuals' attitudes. Dao, Le, Cheng, and Chen (2014) focused on firm-based content in the social media environment and demonstrated that informativeness and entertainment affect consumer's perceived value of content, and results in purchase behaviors. Lou and Yuan (2019) also investigated the mechanisms of influencer marketing implemented by organizations on social media and examined that the impact of informativeness and entertainment of content values on consumers' perception of content trust, which in turn affected the form of intention to purchase.

In sport settings, sport fans use diverse media platforms to access information about their favorite teams (Bonds-Raacke & Raacke, 2010). During the off-season, they tend to spend time checking non-game-related information, such as the updated player roster, rookie/FA draft news, and current trends in sports. Also, the entertainment aspect is one of the most important values

for sport fans to consume sport-related content (McQuail, 2010). Considering this current study focuses on the content provided by sport organizations rather than individual fans, these two types of content values may favorably impact on sport fans' attitude formation and change. In other words, when an individual fan perceives informativeness value and or entertainment value of online content, he or she is more likely to have a positive attitude toward sport organizations. Thus, the following research hypotheses are made:

H1: Informativeness value will have a positive impact on fans' attitudes toward sport organizations.

H2: Entertainment value will have a positive impact on fans' attitudes toward sport organizations.

Individuals follow another route (i.e., peripheral route) to elaborate information (Petty & Cacioppo, 1986) and form attitudes. Source credibility affects peoples' attitude change by serving as a peripheral cue (Chaiken & Maheswaran, 1994). A large body of literature has already demonstrated the impact of source credibility on attitude (e.g., Pornpitakpan, 2004). In the context of social media, several studies have tested the impact of source credibility on consumers and demonstrated its effect (e.g., Djafarova & Rushworth 2017). In particular, Djafarova and Rushworth (2017) used the results of their in-depth interviews to argue that Instagram users' trust in celebrities' product reviews was shaped by the celebrities' expertise and knowledge relating to those products, as well as the celebrities' relevance to users.

Previous research has established multiple dimensions on which audiences perceive a source in various settings. For example, Hovland et al. (1953) reported "trustworthiness" and "expertise" in a persuasive setting. The dimensions of "expertise," "competence," and

"qualification," which were used to assess the professionalism of sources, were regarded to broadly correspond. In addition, "technology affordance" had not been fully acknowledged in understanding source credibility. Without taking these technological affordances into account, the construct of source credibility cannot be comprehensive of the entire domain of material in the setting of social media. Hu (2015) revealed that the perceived tech affordance of source providers affects audiences' judgment. On the basis of previous research, in this study, "competence," "trustworthiness,", and "technology affordance" were used as sub-dimensions of source credibility.

Reinforcing content providers' source credibility is important to increase the relationship quality with fans (Chen & Ku, 2013). Inoue & Kent (2012) provided support for the significant effects of corporate credibility evolved from source credibility (Haley, 1996) on corporate social marketing in sport organizations. With the growth of media effectiveness in sport fields, the importance of source credibility has increased (Funk & Filo, 2013). In particular, information senders' (e.g., sport organizations) high source credibility levels lead to enhanced word-of-mouth influence (Asada & Ko, 2016). Therefore, it is reasonable to suggest that if sport fans perceive high level of source credibility, they would be likely to form a positive attitude toward sport organizations. Thus, the following research hypothesis is made:

H3: Source credibility will have a positive impact on fans' attitudes toward sport organizations.

3.2.2. Attitudes and Off-season Fan Engagement

The development of a favorable attitude toward the team is suggested in the literature as a pivotal factor for sport fans' consumption (Alexandris, Tsaousi, & James, 2007; Speed &

Thompson, 2000). Research on the relationship between attitude and intention in the sport management literature has demonstrated the effect of attitude on individuals' intention to sport-related activities (e.g., Mahony & Moorman, 1999; McDaniel & Heald, 2000; Murrell & Dietz, 1992). In particular, a positive attitude toward sport organizations has predicted intention to attend sport games, watch sporting events, corporate sponsors, and eWOM (Mahony & Howard, 1998; McDaniel & Heald, 2000).

Sport consumers tend to consume sport content if they have favorable attitudes toward sport teams (Madrigal, 2001; Cornwell, Humphreys, Maguire, Weeks, & Tellegen, 2006). Koo, Quarterman, and Flynn (2006) suggested that attitude is an important predictor of fans' online engagement. Given that the types of fans' sport consumption are primarily related to online activities during the off-season, positive attitudes may enable them to be more engaged with sport organizations in that season. Therefore, following on the propositions of previous research, it is hypothesized that:

H4: Attitude toward sport organizations will have a positive impact on off-season fan engagement.

3.2.3. Outcomes of Off-season Fan Engagement

From sport organization's point of view, their fans' intention to transactional behaviors in the coming season is the most useful indicator of their impact on future earnings, including sponsorship interest and media attractiveness (Crompton, 2004). Contemporary sport fans spend money on their favorite teams in a variety of ways, such as attending sporting events, participating in stadium tours, purchasing licensed merchandise, and subscribing to media channels (Wann & James, 2018).

Although previous studies have confirmed the positive effects of fan engagement on positive outcomes (e.g., purchase intention, referral intention; Yoshida et al., 2014), the specific times of sport-related consumption by fans have not been considered. The goal of off-season fan engagement is to encourage fans to consume sports through transactional and or non-transactional formats next season. Therefore, given the importance of predicting the type of sports consumption that will appear in the coming season rather than in the abstract future, it is crucial to apply the season distinction approach when measuring the level of fan engagement. This is hypothesized that:

H5: Off-season fan engagement will have a positive impact on the intention to attend games in a succeeding season.

H6: Off-season fan engagement will have a positive impact on the intention to consume sports media in a succeeding season.

3.2.4. Moderating Role of Media Use

In hypothesis 3, a direct effect from source credibility to attitude has been proposed. In addition to this effect, it is necessary to consider social media use as a possible moderator, which accounts for how the relationship between source credibility and attitude is influenced by the level of media usage. Social media use (i.e., light, medium, heavy use) are distinguished by the individual's previous media usage. Heavy users are defined as those who spend more than 3 hours per day on social media, and light users are those who spend less than 1 hour per day on social media (Casey, 2016). The amount of time spent on media reveals the pattern of usage and the extent to which media has an impact on people (Zulqarnain, 2017). While heavy users have more time to spend exploring different media offerings, light users use their more limited time to

congregate within the most popular offerings (Nelson & Webster, 2016; Webster, Phalen, & Licthy, 2014). Therefore, types of social media use may affect fans' information process and attitude formation.

Identifying the role of social media use as a moderator would help practitioners in the field of sport management to understand sport fans' behavior in the online environment. In particular, because of technology affordance, one of the constructs of source credibility, fans' positive attitude toward sport organizations may be affected by the interaction between user types and source credibility. For example, when fans are provided content with a high level of source credibility, heavy users are more likely to show a higher attitude than light users. As such, the process of forming or changing attitudes toward sport organizations may vary depending on the interactions between source credibility and types of social media use.

H7: Social media use will have a moderating role in the relationship between source credibility and attitude toward sport organizations.

3.2.5. Moderating Role of Team Identification

In addition to examining the direct effect from the attitude toward sport organizations to off-season fan engagement, it is necessary to consider team identification as a possible moderator. In sport settings, team identification is defined as the extent to which individuals perceive themselves as fans of the team and are involved with the team (Branscombe & Wann, 1992), which affects their emotions, attitudes, and behaviors. Particularly, the moderating effect of team identification has been widely tested to improve the understanding of fans' behaviors. Previous studies showed that team identification has a moderating effect in the relationship between team-related attitude and sports consumption (Ahn, Suh, Lee, & Pedersen, 2013).

Taking into account the importance of team identification in sport fan behaviors, including team identification as a moderator, may help sport management scholars comprehend the psychological process of sport fans. It is anticipated that team identification may enhance fans' off-season fan engagement through its interaction with attitude. In other words, a highly identified fan may be more likely to show a higher off-season fan engagement level than a less identified fan when their attitudes are on the same level. This gap among fans would increase as their level of attitude grows. Considering the importance of the role of team identification in exploring sport fans' behaviors, the following research hypothesis is made:

H8: Team identification will have a moderating role in the relationship between attitude toward sport organizations and off-season fan engagement.

CHAPTER IV

METHODS

This chapter explains the methodology and the data analyses conducted to illuminate the formulated research questions and achieve the purposes of the dissertation. The three-fold purpose is to (1) propose a conceptual framework of fan engagement, (2) develop a scale of off-season fan engagement, and (3) examine the relationships among predictors and outcomes of off-season fan engagement. Based on the review of previous literature, the conceptual framework was proposed in Chapter 2, and an empirically testable research model incorporated with research hypotheses was developed in Chapter 3.

This chapter comprises two core sections, namely, introductions to the pilot and main studies. In the first section, a series of analyses were carried out as pilot studies to develop and validate the off-season fan engagement scale. The second section describes the research design of the main study, sampling methods, and data analyses. In the main study, the proposed research model reflecting the various relationships among factors was tested and supported with empirical evidence after testing the reliability and validity of scales. In particular, the hypothesized model was verified using a cross-sectional survey design, which allows the measurement of independent and dependent variables simultaneously by capturing participants' perceptions at a specific point in time (Schwab, 2004).

4.1. Pilot Study

Before conducting the pilot study, the constructs of off-season fan engagement were refined on the basis of the relevant literature on consumer engagement and existing scales (Hollebeek et al., 2014; Li & Bernoff, 2011; Schininski et al., 2016; Vivek et al., 2014). Specifically, CUE and COBRAs were used in this study because each study provides a framework for consumer engagement pertaining to offline and online, respectively. However, none of the presented research fully explain the off-season, a unique phenomenon in the sport context. As a result, the lack of literature emphasizes the need for the pilot study starting with a grounded theory approach. The grounded theory approach allows a researcher to build a theory inductively to describe a phenomenon that may not be fully explained by existing theories (Berezina, Semrad, Stepchenkova, & Cobanoglu, 2016; Strauss & Corbin, 1990). After the quantitative approach, the scale of off-season fan engagement was advanced through an interplay between data collection and analysis. The pilot study was conducted following Churchill's (1979) recommendation regarding a scale development protocol (see Figure 4). This suggested procedure has been widely used to develop better measurements in the field of sport management (e.g., psychological commitment to team scale; Mahony et al., 2000; sporting event experience search scale; Bouchet, Bodet, Bernache-Assollant, & Kada, 2011).

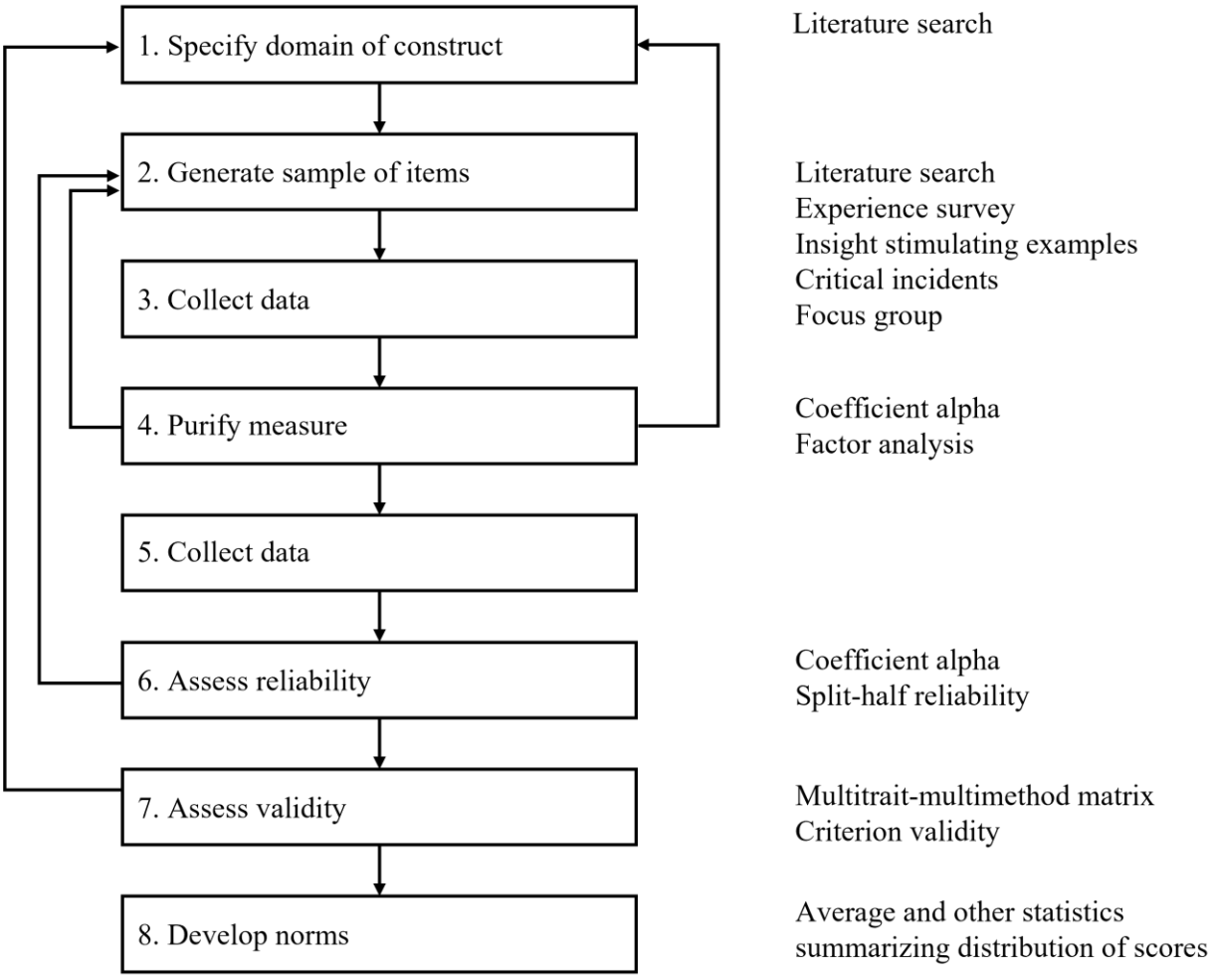

Figure 4

Procedure for Developing Better Measures in Churchill (1979)

In this current study, underlining by a multi-stage methodology, the items of the scale were generated, edited, and validated. Detailed steps and procedures for the pilot study are presented in Figure 5.

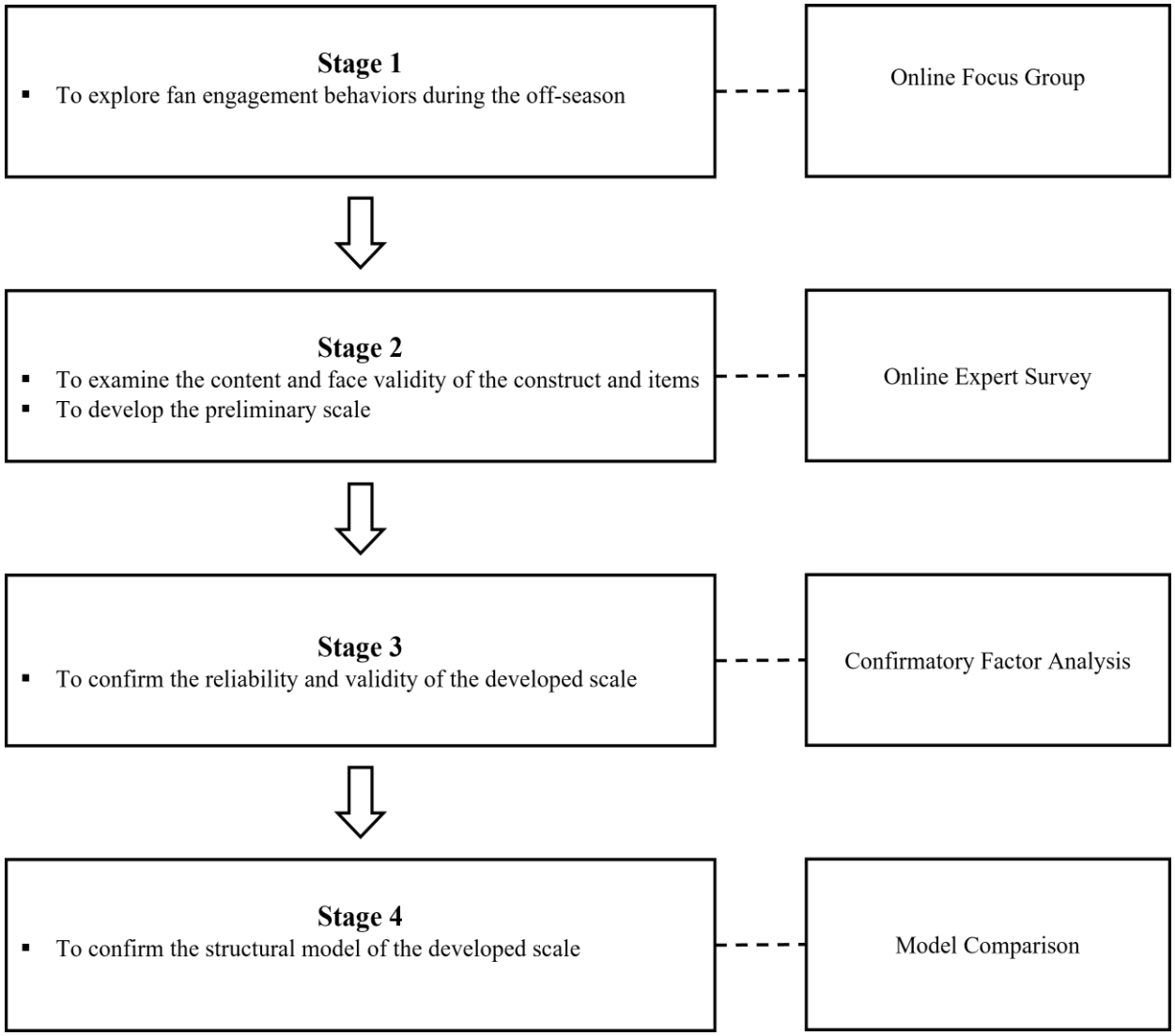

Figure 5

A Procedure for the Pilot Study

4.1.1. Stage 1: Online Focus Group

The purpose of stage 1 of the pilot study is to explore the features of off-season fan engagement. Grounded theory approach (Strauss & Corbin, 1990) was applied as the design for stage 1. Because explaining off-season fan engagement behavior is impossible with existing theoretical frameworks, it was determined that the grounded theory approach is an appropriate

research design. To identify actual fan behaviors during the off-season, an online focus group consisting of sport fans was conducted, focusing on their experiences. Over the two weeks period, this stage was progressed through Google Groups, which is an asynchronous virtual platform. This platform has been widely used for online focus group discussions (e.g., Graham & Fredenberg, 2015; Hanson-Easey, Every, Hansen, & Bi, 2018) because of the advantage that people from a variety of countries can create and participate in online discussion forums (Fox, Morris, & Rumsey, 2007). As proposed by Churchill (1979), Stage 1 (i.e., online focus group discussion) was conducted as an exploratory investigation that has been widely used to discover critical incidents and generate items.

4.1.1.1. Data Collection

For the recruitment, the link for the online discussion forum was posted to sport fans' online communities (e.g., Sports Time, Sports Fans Only) on social media (e.g., Facebook) with a brief explanation of the current study. Once potential participants clicked on the link, they were guided on the purpose of this study and the idea for fan engagement. One filtering question was set on the bulletin board to remove non-appropriate respondents. Specifically, participants had to have ever experienced sport consumption during the off-season. Those who do not fulfill these criteria were excluded from the data set.

The forum designed for this study had a moderator who has responsibilities for posting discussion topics onto a bulletin board and motivating respondents to participate in discussions. The moderator provided explanations to participants in case they have doubts about their tasks. Afterward, participants were asked to select one favorite sport team in professional sport leagues that are highly engaged with them and then describe their engagement activities with the team

during the off-season. Applying an open-ended approach, respondents were also asked to respond to the terms related to the consumption, contribution, and creation facets of consumer engagement. Each posting in the bulletin board was set up with discussion topics, a filtering question, demographic questions, including age and favorite sports team. Throughout the study, the respondents were asked to discuss the following topics:

- Describe your behavior as a sport fan in relation to the cognitive, emotional, and behavioral aspects during the off-season.
- During the off-season, what activities do you normally do to keep in touch with your favorite sports team?
- Can you describe what you generally do during the off-season to stay engaged with your favorite sports organizations?

4.1.1.2. Data Analysis

The gathered data from participants were transformed from the discussion forums into a word-processing document. Then, the incident-by-incident strategy was used for the initial coding through two coders who were graduate students in the sport administration program. They individually read all responses from 28 participants and tracked them on fan engagement behavior. To identify key patterns and themes, a method of focus coding was used (Berg, 2007; Saldaña, 2009). To achieve this, data were thoroughly and repeatedly reviewed to include particular activities related to engagement during the off-season. When participants stated behaviors that did not match any of the behaviors derived from literature, they were labeled as new. A cross-check process (Huberman & Miles, 2002) was performed to have consistent results in the codes. In particular, the coders work together to resolve the few coding disagreements,

which all related to the distinctiveness of some of the engagement behaviors. For example, coders disagreed on the behaviors expressed in the following statement: ‘My friends and I mostly send each other different accounts telling interesting things that are happing or call each other up to see if that know anything new.’ While one coder had labeled this statement to the category of ‘sharing information,’ the other coder had additionally assigned it to the category of ‘communicating with friends.’ Through a discussion, the coders agreed to include all two behaviors. This process continued until they reached full agreement on all coding decisions.

In addition, to enhance the accuracy of the findings from the theme, a peer debriefing strategy was applied through a faculty member (i.e., assistant professor of sport administration program) of the University of Mississippi. This strategy requires the researcher to check the final report from one or several colleagues who hold impartial views of the study and then receive feedback (Huberman & Miles, 2002). This process was involved arranging and sorting the data, and subsequently refined categories around explored off-season fan engagement. The coding outcomes were converted to survey items on the basis of previous literature.

4.1.2. Stage 2: Online Expert Survey

The purposes of stage 2 are to validate the items of off-season fan engagement developed in stage 1 from scholars in the field of sport management. This stage is designed to ensure clarity of the definition of constructs and the items corresponding to that construct by eliminating ambiguous and redundant terms (Nunnally & Bernstein, 1994). According to Netemeyer, Bearden, and Sharma (2003), measuring content validity in the early stages of scale development can help improve the effectiveness of a measurement tool. To these ends, an online expert survey was conducted.

4.1.2.1. Data Collection

A set of specialists—that is, expert panel—with knowledge on sport fan behaviors was recruited to cooperate in the development of the off-season fan engagement scale. The expert panel was selected based on the following criteria:

- Highest degree: Master's or higher
- Research experience: over five years
- Research areas: sport marketing, consumer behavior, fan engagement

After developing a list of 12 experts from around the world (e.g., Japan, The United Kingdom, The United States of America), an invitation email was distributed to them. Each expert was requested to evaluate all potential items depending on their importance and relevance to test the content validity of the preliminary constructs and items. They were also asked to provide comments on the definition of each construct if modifications were needed (see Appendix C). The email contained:

- An introduction to this study
- 16 items of off-season fan engagement with a brief definition of each construct
- A comment box

4.1.2.2. Data Analysis

As suggested by Zaichkowsky (1985), experts assessed each potential item for relevance using the following range from (1) "*not representative*" to (10) "*clearly representative*." In addition, each item was evaluated on a scale of 1–10 points based on importance. Items that are rated as non-representative (e.g., less than 80 percent agreement) of the off-season fan

engagement activities and non-importance (e.g., less than 5 points) were excluded from the list. Based on the experts' comments and feedback, the terminology and organization of the items were also modified.

4.1.3. Stage 3: Confirmatory Factor Analysis

In stage 3, a confirmatory factor analysis (CFA) with maximum likelihood estimation was performed to confirm and validate the structure of the off-season fan engagement scale. There was no need for exploratory factor analysis because a priori theoretical structure of consumer engagement had been proposed (Bollen, 1998; Vivek et al., 2012). The CFA enables the measurement of internal consistency and construct validity, including convergent validity and discriminant validity. A fundamental aspect of construct validity is to verify whether each item of a scale contributes to its corresponding underlying theoretical construct, which is greater than twice its standard error (Anderson & Gerbing, 1988). Convergent validity refers to the relationship between observed variables of a single construct with the use of different assessment methods (Salvia & Ysseldyke, 1998). Discriminant validity is demonstrated when latent variables that tap into other constructs are uncorrelated with other latent variables (Campbell, 1960). In this study, composite reliability (CR) and average variance extracted (AVE) of each construct were used as indicators.

4.1.3.1. Data Collection

After securing approval from the Institutional Review Board (IRB), data was collected through an online survey administered using Qualtrics survey software (Qualtrics Labs, Provo, UT). Non-probability sampling approach (i.e., convenience sampling) was used for the data

collection. The survey was distributed to adults who consumed online content related to sport organizations in the English Premier League (EPL), the Major League Baseball (MLB), the National Basketball Association (NBA), the National Football League (NFL), and National Hockey League (NHL) during the last off-season. Specifically, young adults (18–29 years old; Thayer & Ray, 2006) were targeted. This was because they are described as people living in a technology-rich culture (Bennett, Maton, & Kervin, 2008) and a generation "surrounded by and using computers, video cams, and all the other tools of the digital age" (Prensky, 2001, p. 1). They prefer to use online shops instead of going to brick buildings and receive information via audio-visual communication rather than written sources (Scholz & Rennig, 2019). Thus, it is desirable to use this targeted sample to explore the activities of sport consumers in online environments. The email addresses of the target population were collected from the Office of Institutional Research, Effectiveness, and Planning at the University of Mississippi. The potential research participants received the survey invitation email, which contains a brief introduction to the study and a link to an electronic informed consent form. The participants in this survey were voluntary, and once they agree to participate in the survey, they were able to access the first page of the online survey. To qualify for respondents in this study, all the respondents were required to indicate that they follow at least one sport organization on social media platforms. The survey was divided into three sections: a definition of off-season fan engagement, the items of off-season fan engagement activities, demographic questions (e.g., gender, age, favorite sport team). All items for off-season fan engagement were measured on seven-point Liker-type scales with response categories anchored by "s*trongly disagree*" (1) and "*strongly agree*" (7). Following Hair, Black, Babin, and Anderson's (2010) recommendation, the target number of respondents was determined on the basis of the subject-to-item ratio of 1:5.

4.1.3.2. Data Analysis

Mplus version 6.0 (Muthén & Muthén, 2010) was used to evaluate the goodness-of-fit scores of the model; the indices to be used for this purpose are the chi-square test statistic, the comparative fit index (CFI), the Tucker–Lewis index (TLI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR). Values greater than 0.90 for CFI and TLI and values of 0.08 or lower for RMSEA (Browne & Cudeck, 1992) or SRMR indicate good model fit (Hu & Bentler, 1999). To confirm the internal consistency of each construct, CR was determined. The extent of CR in a set of items indicates the consistency of a latent construct (Hair et al., 2010). With regard to convergent validity and discriminant validity, CR and AVE of each construct were used as indicators. The AVE refers to the degree of variance captured by a construct in association with the degree of variance due to measurement errors. The thresholds of CR and AVE are 0.7 and 0.5, respectively (Hair et al., 2010). The AVE values were also be compared with the square of the estimated correlation between constructs. If the AVE values are greater, then an instrument has acceptable discriminant validity (Hair et al., 2010).

4.1.4. Stage 4: Model Comparison

Considering this current study was a first attempt to conceptualize off-season fan engagement, a model comparison analysis was conducted between the first-order and the second-order measurement model to prove a better understanding of the structure. To verify the proper structure of off-season fan engagement, a CFA for the second-order model was performed and compared with the results from the first-order model. In addition, the path coefficients for the

second-order model were investigated and evaluated the differences by comparing them with the path coefficients in the first-order model.

4.2. Main Study

The three-fold purpose of the main study is to (1) provide evidence of construct validity of all constructs in the research model (i.e., informativeness content, entertainment value, source credibility, attitude, off-season fan engagement, intention to attend games, intention to consume sports media, team identification), (2) to test research hypotheses in regard on causal relationships among constructs, and (3) to examine the moderating role of not only social media use between source credibility and attitude but also team identification between attitude and off-season fan engagement. To achieve the purpose of the main study, three stages of data analysis were carried out: (1) an evaluation of the measurement model through CFA, (2) an empirical test of the research hypotheses through SEM, and (3) an examination of the moderation effects. Prior to a discussion of the data analysis, the information about the target population, the process of data collection, and the survey instrument are introduced in the succeeding section.

4.2.1. Data collection

The target population of the main study was people who are fan of sport organizations (i.e., EPL, MLB, NBA, NFL, NHL) and have ever experienced sports consumption during the off-season. To collect the data, an online survey questionnaire was developed using Qualtrics survey software (Qualtrics Labs, Provo, UT) after securing approval from the IRB (Appendix A). Potential research participants were sent an invitation email containing a brief introduction, the purposes of the research, and a link to an electronic informed consent form (Appendix B). When

they express agreement to take part in the survey, they were granted access to the first page of the online survey. To increase the response rate, a total of 10 randomly selected respondents were given compensations (e.g., a $25 gift card).

The recommended SEM sample size criterion (Hair et al., 2010) of 1:5 (item-to-response ratio) was adopted in determining the appropriate sample size for the main study. On the basis of the number of items finalized in the pilot study, the minimum required sample size (i.e., 275) for the main study was determined.

4.2.2. Survey Instrument

The questionnaire consisted of two major parts: eight principal constructs, such as informativeness value, entertainment value, source credibility, attitude, off-season fan engagement (e.g., OFE-C, OFE-S, OFE-A), intention to attend games, intention to consume sports media, team identification) and demographic questions (e.g., gender, age, ethnicity, employment status, household income, favorite sports league, average amount spent on favorite sports team, average time using social media). Except for the demographic questions, the finalized research items were randomly sequenced to avoid biased responses. In the questionnaire, to reduce respondent bias caused by the COVID-19 pandemic, a statement reminding pre-COVID-19 experiences was added on the first page. The instrument also entailed the modification of items proposed in studies for suitability to the sport context. The next section presents the definitions of all constructs and the items that correspond to them except off-season fan engagement, which was presented in the results of the pilot study.

4.2.2.1. Content value

Content value is a positive outcome of the weighting of research efforts and resources engaged and the quality of information obtained through this process (Jiao, Jo, & Sarigöllü, 2017). Although content value has been suggested as a second-order model by several scholars (e.g., Lou & Yuan, 2019), it has been widely used as a first-order model due to the unique properties of each construct (e.g., Jung, Min, & Kellaris, 2011; Lou & Xie, 2020). Informativeness value describes the ability to facilitate informed decisions and subsequent purchase satisfaction (Ducoffe, 1996), whereas entertainment value captures content's potential to entertain and amuse audiences (Munnukka, Uusitalo, & Toivonen, 2016). In correspondence with Sun, Lim, Jiang, Peng, and Chen (2010), this study centered on these two values to quantify the appeal of sport organization-generated content. Accordingly, 10 items related to the two constructs were used (Table 2), that is, five items on informative values and another five items on entertainment value. The survey was capturing the informativeness and entertainment value of content by measuring the participants' responses to the following statement: "I think the content (e.g., photos, videos, articles) provided by my favorite team in online environments is. . ." Their responses were anchored by a seven-point semantic differential scale (Voss, Spangenberg, & Grohmann, 2003).

Table 2

Measures of Content Value

Constructs	Items

Informativeness value	1. Ineffective/Effective 2. Unhelpful/Helpful 3. Not functional/Functional 4. Unnecessary/Necessary 5. Impractical/Practical
Entertainment value	1. Not fun/Fun 2. Dull/Exciting 3. Not delightful/Delightful 4. Not thrilling/Thrilling 5. Unenjoyable/Enjoyable

4.2.2.2. Source credibility

Source credibility is the extent to which an information source is perceived to be believable, competent, and trustworthy by information recipients (Sussman & Siegal, 2003). Considering that the content providers of the current study are sport organizations rather than individuals, the scale for organizational source credibility was used. Source credibility was measured using a modified version of Bhattacherjee and Sanford's (2006) and Sussman and Siegal's (2003) four-item scales. Three of the original scales' items, which assessed individuals' perception of the sources' knowledgeability, expertise, and trustworthiness were retained, but one item of the reliability was replaced with technology affordance based on Hu (2015). The participants were instructed to indicate their agreement with the statements using a seven-point semantic differential scale. As with the content value items, the questions capture source credibility by measuring the participants' responses to the statement: "I think the content (e.g.,

photos, videos, articles) provided by my favorite team in online environments is. . .” The source credibility items are shown below (Table 3):

Table 3

Measures of Source Credibility

Constructs	Items
Source credibility	1. Unintelligent/Intelligent
	2. Inexpert/Expert
	3. Untrustworthy/Trustworthy
	4. Unverified/Verified

4.2.2.3. Attitude

Attitude toward a team refers to a devotee’s overall impression of the team (Biscaia, Correia, Rosado, Ross, & Maroco, 2013). To measure attitude, four items from MacKenzie and Lutz (1989) and Madden, Allen, and Twible (1988) were adapted to suit the sport context. All the items were measured on a seven-point Likert-type scale ranging from 1 (“strongly disagree”) to 7 (“strongly agree”). The items in question are shown below (Table 4):

Table 4

Measures of Attitude

Constructs	Items
Attitude	1. [My favorite team] is enjoyable.
	2. [My favorite team] is attractive.
	3. [My favorite team] is valuable.

4. [My favorite team] is favorable.

4.2.2.4. Social Media Use

Social media use was employed as one of the moderators in this study. Depending on the amount of time they spend on social media, the types of social media use were categorized as light, medium, and heavy users. Those who spend more than 3 hours per day on social media are classified as heavy users, while those who spend less than 1 hour per day are classified as light users (Casey, 2016). One open-ended question was used, asking the average time spent on social media. The amount of time was measured in hours per day.

4.2.2.5. Intention to Attend Games

The intention to attend sporting events is the degree to which an individual visits onsite (i.e., stadiums) events to directly experience the atmosphere of the destination and spectate sports events (Funk, 2017). To measure attendance intention, four items were adapted from Johnson and Grayson (2005), Garbarino and Johnson (1999), and Lacey, Suh, and Morgan (2007). To suit the purpose of the current study, all statements on each item included a time limit (i.e., next season), which implies the post-COVID pandemic. To address issues of geographic limitations and displaced fans, the participants were instructed to assume that there are no physical constraints before responding. The intention to attend games was measured on a seven-point Likert-type scale ranging from 1 (“strongly disagree”) to 7 (“strongly agree”). The items associated with game attendance intention are shown below (Table 5):

Table 5

Measures of Intention to Attend Games

Constructs	Items
Intention to attend games	1. I intend to attend sporting events of [my favorite team] next season. 2. I am willing to attend games of [my favorite team] next season. 3. I will make an effort to attend sporting events of [my favorite team] next season. 4. I will spend money to attend sporting events of [my favorite team] next season.

4.2.2.6. Intention to Consume Sports Media

The intention to consume sports media is defined as the extent to which an individual watches sporting events on screen (e.g., television, mobile) and interacts with other fans or sport organizations through media platforms (Wann & James, 2018). Three items of viewership intention were developed by Potwarka, Nunkoo, and McCarville (2014), and these items exhibited acceptable internal consistency and validity. To measure intention to consume sports media, Choe et al. (2019) suggested using four items related to the types of media platforms. In the present work, these four items are modified by adding a time limit to each item (i.e., next season). All the items are measured on a seven-point Likert-type scale ranging from 1 (“strongly disagree”) to 7 (“strongly agree”). The items pertinent to the intention to consume sports media are listed below (Table 6):

Table 6

Measures of Intention to Consume Sports Media

Constructs	Items

Intention to consume sports media	1. I will watch [my favorite team]'s game on media platforms next season. 2. I will listen to [my favorite team]'s game on the radio next season. 3. I will check [my favorite team]'s game results on news next season. 4. I will visit [my favorite team]'s website and/or social media next season.

4.2.2.7. Team Identification

Team identification pertains to an individual fan's psychological connection to a team and the extent to which the fan views the team as an extension of himself or herself (Wann et al., 2011). To measure team identification, the Sport Spectator Identification Scale (SSIS; Wann & Branscombe, 1993) was used. Because the SSIS has documented internal consistency, test-retest reliability, and validity, it has been widely used in studies on sport fan behaviors (e.g., Bernache-Assollant, Bouchet, & Lacassagne, 2007; Haugh & Watkins, 2016; Theodorakis, Wann, Nassis, & Luellen, 2012). The SSIS contains seven Likert-scale items with response options ranging from 1 ("low identification") to 8 ("high identification"). The scale anchors vary depending on the item (e.g., very important, not important, strongly agree, strongly disagree). All team identification items are shown below (Table 7):

Table 7

Measures of Team Identification

Constructs	Items
Team identification	1. How important is it to you that [my favorite team] wins? 2. How strongly do you see yourself as a fan of [my favorite team]?

3. How strongly do your friends see you as a fan of [my favorite team]?
4. During the season, how closely do you follow [my favorite team] via any of the following: (a) in person or on television, (b) on the radio, and (c) televised news or a newspaper.
5. How important is being a fan of [my favorite team] to you?
6. How much do you dislike [my favorite team]'s greatest rivals?
7. How often do you display [my favorite team]'s name or insignia at your place of work, where you live, or on your clothing?

4.2.3. Data screening

Data screening was performed through a series of assumption tests. First, missing values were excluded via the listwise deletion method if the pattern of missing data is random (Tabachnick & Fidell, 2007). Second, outliers were identified through Mahalanobis distances and removed to avoid the distortion of the results of data analysis. Third, a multivariate normality assumption was tested by calculating Mardia's skewness and kurtosis coefficients. A value above 3.0 indicates that a data set is non-normally distributed (Mardia, 1970). By recognizing whether data are normally distributed, researchers can evaluate subsequent measurement and structural models in SEM (Anderson & Gerbing, 1988). If the normality assumption is violated, a modified maximum likelihood estimation technique should be applied (e.g., Satorra & Bentler salted statistic: Satorra & Bentler, 1994). Lastly, issues regarding multicollinearity or singularity were confirmed through a correlation matrix (Tabachnick & Fidell, 2007).

4.2.4. Descriptive statistics

After conducting data screening, descriptive statistics were calculated using SPSS 26 version for Windows. The scores derived from the descriptive statistics showed the data's central tendency (e.g., mean) and variability (e.g., standard deviation). Although these results are useful for summarizing data and providing a sketch of a sample, they are limited in that they do not provide statistical evidence of causal relationships. Therefore, additional data analyses were performed to verify the research hypotheses.

4.2.5. Data analysis

Prior to testing the significance of the relationship in the structural model, the measurement model has to meet the established degree of reliability, validity and satisfy the compatibility index (Fornell & Larcker, 1981). To verify significant items for each construct, the method of factor validation analysis (e.g., CFA) should be used.

A two-step modeling approach was adopted to analyze data in the main study. First, the fit of the measurement model was checked using a series of CFAs. To determine the degree of reliability and validity of the constructs and their observed variables, several steps were taken. First, correlations among latent constructs were examined to confirm the multicollinearity and singularity issues. Second, construct validity was tested, with specific attention paid to convergent validity and discriminant validity. To this end, the acceptable values for CR (i.e., > .70) and AVE (i.e., > .50) were assessed (Hair et al., 2010). Third, all AVE values were compared with the squared of correlations between latent constructs. All the values of AVE should be higher than the squared of all correlations for acceptable discriminant validity (Fornell & Larcker, 1981). Fourth, a number of goodness-of-fit indices were used to evaluate how well

the measurement model fits the data, including chi-square statistics, CFI, TLI, RMSEA, and SRMR.

With the acceptability of the measurement model confirmed, the second step was performed to test a structural equation model that features hypothesized relationships. The last purpose of the study is to examine the proposed research hypotheses through the SEM, which is the equation related to the covariance of variables with model parameters. The SEM is a collection of statistical techniques that clear the way for examining a set of relationships between one or more independent variables and one or more dependent variables (Swanson & Holton, 2005). SEM enables researchers to analyze a model that reflects the relationships among latent variables (i.e., factors). Latent variables cannot be measured directly, but they can be evaluated indirectly using more than one measured variable. Thus, relationships among observed variables and latent variables should be examined—a process that generates what is called a measurement model. In the matter of the structural model, SEM delves into hypothesized causal relationships among factors. In this process, no measurement errors exist in factorial relationships because SEM covers residuals (i.e., measurement errors) in the analysis.

In terms of the structural model, the current research model incorporates a total of 16 direct effects (Informativeness value → Attitude, Entertainment value → Attitude, Source credibility → Attitude, Attitude → OFE-C, Attitude → OFE-S, Attitudes → OFE-A, OFE-C→ Intention to attend games, OFE-S → Intention to attend games, OFE-A → Intention to attend games, OFE-C → Intention to consume sports media, OFE-S → Intention to consume sports media, OFE-A → Intention to consume sports media). To this end, the goodness-of-fit indices (i.e., CFI, TLI, RMSEA, and SRMR), a standardized residual matrix, standardized factor loadings, and modification indices were checked. Support for or rejection of the hypotheses was

determined through the individual standardized path coefficients from the path analysis using Mplus version 6.0 (Muthén & Muthén, 2010).

After the research hypotheses regarding direct effects are tested, the moderating effects of social media use in the relationship between source credibility and attitude and team identification in each relationship between attitude and three constructs (i.e., OFE-C, OFE-S, OFE-A) of the off-season fan engagement were tested, respectively. To examine the moderating effects, the current research used Hayes's (2012) PROCESS macro tool, which is extensively employed in estimating interactions in moderation models, along with simple slopes and regions of significance for probing interactions (Bolin, 2014). Among the predetermined models of the tool, Model 1 was selected for the current study. The results of hypotheses on moderating effects were determined on the basis of the effects of interaction variables (i.e., source credibility * social media use, attitude * team identification).

CHAPTER V

RESULTS

The purposes of this study are not only to provide a conceptual framework of year-round fan engagement but also to develop the scale of off-season fan engagement and to use statistical analyses to determine the role of off-season fan engagement between its triggers and consequences. To achieve the first purpose, the year-round fan engagement model was proposed in Chapter 2, which includes the influence of content value, source credibility, and attitude on off-season fan engagement, along with two outcomes—intention to attend games and intention to consume sports media. The current chapter focuses on the latter purpose of this study, developing of off-season fan engagement scale and examining the research model developed with a total of 16 hypotheses proposed in Chapter 3. Based on the research methods provided in Chapter 4, this chapter describes the data analysis results of the pilot study and main study. The results of the pilot study, consisting of four steps, are presented, followed by the results from the main study sequentially.

5.1. Pilot Study

5.1.1 Stage 1: Online Focus Group

To explore sport fan engagement behaviors during the off-season, a qualitative method-based exploratory study (i.e., online focus group) was conducted, employing a total of 28 respondents. Of the total sample, 17 of the respondents were men (60.71%) and 11 were women

(39.29%); their average age was 25.2 years (SD = 4.29). An overview of the stage 1 results is provided in Table 8. As observed from Table 8, the response findings showed that fans actively engage with their favorite teams through various forms during the off-season. Content analysis of the responses revealed that the respondents reported the fan engages with their favorite teams during the off-season through interactions with not only teams but also other fans.

"During the off-season, I keep myself updated with my favorite sport teams by paying attention to big sources. I mainly follow these accounts on Instagram and twitter since I use those apps the most. I also look at trade talks/recruiting so I can get a sense of who my teams may pick up."

"Most of my friends and I use Snapchat, Instagram, Twitter, Facebook and TikTok when it comes to social media during the off-season. There are many ways to stay in the loop for your favorite teams during the off-season, but I found that Twitter is the best for me."

"My friends and I are more college football fan than anything. So, when it is the off-season, we mostly like to talk about what could happen to each player for the next season. We follow many college football pages either on Instagram and twitter and the follow the transfer portal like it's our bible sometimes."

Furthermore, contrary to expectations that fan engagement occurs predominantly in online environments, several engagement behaviors were discovered in offline environments. Therefore, it was considered that the framework of COBRAs, which was the basis for off-season fan engagement, needs to be expanded to include behaviors beyond the online environments.

"Me and my friends also talk about many "What ifs" involving our teams. We would tell each other who we would sign, fire, draft, and trade for if we were in charge."

Table 8

A List of Off-season Fan Engagement Behaviors

Fan engagement behaviors
1. I pay attention to anything about (my favorite team) during the off-season.
2. I check posts related to (my favorite team)'s next season.
3. I spend time watching (my favorite team)'s legend/alumni games during the off-season.
4. I search for behind-the-scenes content of (my favorite team) during the off-season.
5. I search for (my favorite team) related accounts on social media during the off-season.
6. I reveal through social media that I am a fan of my favorite team during the off-season.
7. I am aware of my favorite team-related accounts on social media during the off-season.
8. I attend (my favorite team)'s fan events to share my experiences with other fans during the off-season.
9. I talk about off-season issues related to (my favorite team) with friends.
10. I share (my favorite team) related content with other fans during the off-season.
11. I discuss (my favorite team)'s off-season issues with other fans online.
12. I predict the performance of (my favorite team) next season.
13. I enjoy engaging in arguments with opposing fans during the off-season.
14. I wear apparel that represents (my favorite team) fan during the off-season.
15. I spend time creating content related to (my favorite team) during the off season.
16. I post non-game related content of (my favorite team) during the off-season.

"During the off-season, me and my friends participate in fan events to stay entertained. However, With COVID happening, this off-season was more virtual than normal."

In summary, this online focus group discussion revealed that overall fan engagement behaviors are consistent with earlier research findings addressing the engagement concept

(Muntinga et al., 2011; Schivinski et al., 2016; Vivek et al., 2014). In addition to them, a variety of new behaviors were discovered. As a result, the findings were organized into a list of 16 off-season fan engagement behaviors and used in the next stage of the pilot study.

5.1.2. Stage 2: Online Expert Survey

Stage 2 entailed reviewing and revising a list of 16 items to ensure appropriateness, as well as defining the dimensions of off-season fan engagement. Based on relevance and clarity of wording and content, a panel of 10 experts in the field of sport management assessed the definitions of three-construct of off-season fan engagement and content validity of all items. The profile of each expert is presented in Table 9.

The expert online survey enhanced the outcomes from stage 1. The responses from the expert survey recommended the renaming of three constructs, modifying the wording of several items, and removing four items to enhance clarity and meaning. First, most experts suggested changing three constructs' names to represent the unique characteristics of this scale. Given that the concept of off-season fan engagement (OFE) encompasses both offline and online environments, it was recommended to distinguish them from construct names within the COBRAs scale. These recommendations were accepted, and the three constructs were renamed to conscious focus (OFE-C), social interaction (OFE-S), and active participation (OFE-A).

Table 9

Participant Profiles for the Expert Online Survey

Pseudonym	Status	Research experience (year)	Working country
Steven	Associate Professor	14	The United Kingdom

James	Associate Professor	13	The United States
Jack	Assistant Professor	9	The United States
Andrew	Assistant Professor	14	The United States
Ho	Associate Professor	20	Japan
Kevin	Assistant Professor	14	The United States
King	Assistant Professor	13	The United States
Paul	Assistant Professor	7	The United States
Tyler	Assistant Professor	9	The United States
Evan	Assistant Professor	8	The United States

In addition, a total of four items were eliminated based on (1) the representativeness agreement and (2) the mean score of importance. Specifically, one item ("I reveal through social media that I am a fan of my favorite team during the off-season.") in the OFE-C and one item ("I post non-game related content of my favorite team during the off-season.") in the OFE-A were removed due to low importance scores of 3.54 and 2.86, respectively. The last two removed items ("I search for my favorite team related accounts on social media during the off-season.," "I am aware of my favorite team-related accounts on social media.") due to low representativeness agreement (i.e., below 80 percent) was in the OFE-C.

Additionally, on the basis of experts' comments and feedback, item corrections were conducted to reduce the possibility of respondents' confusion. In particular, the expression "*I enjoy engaging…*" was replaced by "*I enjoy participating…*". Several examples of activities were added to clarify the meaning of items (e.g., behind-the-scenes content, spring training, trade, draft).

In summary, a total of four items were detached from the preliminary measurement through the item deletion and correction procedures, and the names of each construct were refined. As a result, the scale of off-season fan engagement consisting of three constructs emerged with 12 items was established. The three construct definitions and items are explained in Table 10.

Table 10

The Scale of Off-season Fan Engagement

Dimension	Definition/items
Conscious Focus (OFE-C)	It is the degree of interest an individual has or wishes to have in involvement with the focus on a favorite team. It reveals the extent of individuals' cognitive investment in a specific sport organization.
	• I pay attention to anything about (my favorite team) during the off-season. • I check posts related to (my favorite team)'s next season (e.g., draft, FA). • I spend time watching (my favorite team)'s legend games during the off-season. • I search for (my favorite team)'s behind-the-scenes (e.g., CSR) content during the off-season.
Social Interaction (OFE-S)	It is the degree of interest that an individual has or wants to interact with fellow fans based on the inclusion of them with a focus of interaction or participation. This construct includes the notion of interaction, dialogue, participation, and sharing of team-related values and contents.
	• I attend (my favorite team)'s fan events during the off-season. • I talk about off-season issues of (my favorite team) with people in my daily life. • I share (my favorite team) related content with other fans during the off-season.

	• I discuss (my favorite team)'s off-season issues (e.g., training) with other fans in online.
Active Participation (OFE-A)	It is the degree of enthusiastic behavior of a person involved in participating in a favorite sports team. It reveals an individual's strong and positive behavior for the team. Within this construct, the notion of initiating an activity associated with the team is also included.
	• I am passionate about predicting (my favorite team)'s performance of the next season. • I enjoy creating content related to (my favorite team) during the off-season. • I like to wear apparel that represents (my favorite team)'s fan during the off-season. • I enjoy participating in arguments with opposing fans during the off-season.

5.1.3. Stage 3: Confirmatory Factor Analysis

Based on an online focus group (stage 1) and an online expert survey (stage 2), an initial pool of twelve items was generated to assess the three proposed components of off-season fan engagement. To perform a CFA for these items, an online questionnaire was developed using the Qualtrics software system. With the exception of the demographic information questions, all of these self-report questionnaire items were rated on a seven-point Likert scale, ranging from (1) "*strongly disagree*" to (7) "*strongly agree.*"

Data were collected for two weeks, and an invitation email was sent to a public university in the southeastern United States (i.e., University of Mississippi). The IP addresses and email addresses of all participants were stored in the database in order to restrict further access from these addresses, resulting in a total of 262 responses (response rate = 17.47%). The data cleaning yielded a final valid sample of 244 questionnaires. The participants' demographic

information is presented in Table 11. The research participants consisted of 126 males (51.64%), 112 females (45.90%), and 6 (2.46%) responded as not to report. Nearly half (*n* = 131, 53.69%) of the participants were between the ages of 18 and 24, 51 (20.90%) of the participants were between the ages 25 – 34, 47 (19.26%) of the participants were between the ages 35 – 54, and 15 (6.15%) of those aged 55 and older. More than half (*n* = 160, 65.57%) of the participants were Caucasian, followed by African American (*n* = 48, 19.67%), Asian (*n* = 23, 9.43%), Hispanic (*n* = 7, 2.87%), and other (*n* = 6, 2.46%). The majority of respondents were students (*n* = 158, 64.76%), 62 (25.41%) full-time employees, and 24 (9.83%) were part-time employees. With regard to household incomes, 67 (27.47%) were between the $10K and $30K, 64 (26.23%) were below $10K, 44 (18.03%) were $30K and $60K, 35 (14.34%) were $60K and $90K, and 34 (13.93%) were over $90K. The participants spend on sport-related consumption an average of $229.98 (SD = 1095.76), ranging from $0 to $15K. The respondents supported their favorite teams an average of 15.70 years (SD = 12.27) with a range of 1 to 55 years.

Table 11

Participants Demographics Information for Stage 3

Variable	Group	*n*	*%*
Gender	Female	112	45.90
	Male	126	51.64
	Prefer not to report	6	2.46
Age	18 – 24 years	131	53.69
	25 – 34 years	51	20.90
	35 – 44 years	24	9.84
	45 – 54 years	23	9.42
	55 years +	15	6.15
Ethnicity	African American	48	19.67

	Asian	23	9.43
	Caucasian	160	65.57
	Hispanic	7	2.87
	Other	6	2.46
Employment status	Undergraduate student	91	37.30
	Graduate student	67	27.46
	Full-time	62	25.41
	Part-time	24	9.83
Household income	Below $10K	64	26.23
	$10K – $30K	67	27.47
	$30K – $60K	44	18.03
	$60K – $90K	35	14.34
	Over $90K	34	13.93
Favorite Sports League	MLB	45	18.44
	NBA	56	22.95
	NFL	62	25.41
	NHL	19	7.79
	EPL	51	20.90
	Other	11	4.51
Total		244	100.00

Data were examined for multivariate skewness and kurtosis to see if they were close enough to a normal distribution. As a result, it was found that the normality assumption was violated, the value of multivariate skewness coefficient was 823.77 ($p < .001$) and multivariate kurtosis coefficient was 8.45 ($p < .001$). The results of the Mahalanobis distance indicated that none of the multivariate outliers in the data set, ranging from 13.30 to 20.93 ($p > .05$; Bagozzi & Yi, 1988). Also, correlations among the variables were calculated to confirm the absence of multicollinearity. All factors were significantly correlated with each other at the alpha level

of .01. All correlation coefficients among variables did not above the cut-off of .85 (Kline, 2005), indicating that the data set did not have extreme multicollinearity or singularity (see Figure 6).

To perform a CFA for off-season fan engagement, data were analyzed using Mplus 6.0 (Muthén & Muthén, 2010). Because of the non-normality issue, a robust maximum likelihood was used based on Satorra-Bentler's (1994) scaling method. A good fit of the model was assumed through the S-B Scaled χ^2 and global fit indices were used to evaluate the measurement model. In particular, the values of the robust CFI, TLI, RMSEA, and SRMR were calculated. The results indicated that the measurement model of off-season fan engagement had a significant χ^2 value (S-B χ^2 (df) = 212.505 (51), $p < .001$) , which should not be statistically significant if the model fits well. The χ^2 statistic, however, is sensitive to sample size and is therefore not suitable for use as a basis for acceptance or rejection of well-fitting hypothesized models (Barrett, 2007; Schlermelleh-Engel, Moosbrugger, & Müller, 2003; Vandenberg, 2006). As alternate indices of model fit, comparative fit indices were examined. The results indicated that a well-fitting model in terms of robust CFI (.938), TLI (.920) and acceptable fit for RMSEA (.064) and SRMR (.051). The factor loadings for all items exceeded cut-off point of .5 (Hair et al., 2010), ranged from .735 to .936. Internal consistency for each construct was estimated through CR, resulting in greater than the recommended criterion of .70 (Hair et al., 2010), ranging from .915 to .935. Convergent validity was checked using the AVE, and all values were exceeded the suggested the cut-off of .05 (Fornell & Larcker, 1981), ranging from .731 to .783, indicating good convergent validity. In addition, the AVE of each construct and the squared multiple correlations between that construct and any other were compared to determine discriminant validity (Fornell & Larcker, 1981). As a result, the discriminant validity for three constructs of off-season fan engagement

was accepted. Overall, the model evaluation results showed that this off-season fan engagement scale has statistical grounds, confirming the string reliability and validity of the proposed model constructs. The detailed results are presented in Table 12.

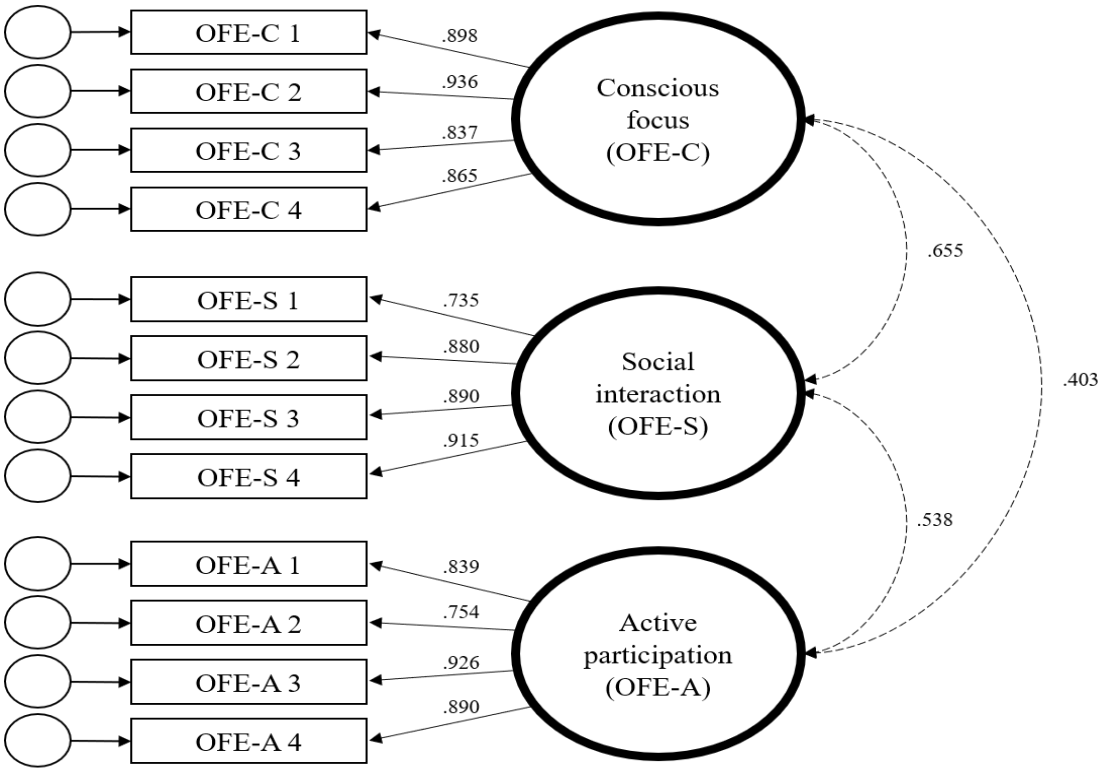

Figure 6

Confirmatory Factor Analysis−Off-season Fan Engagement Scale

5.1.4. Stage 4: Model Comparison

The analysis of model comparison was conducted to evaluate the structure of off-season fan engagement. To this end, the second-order model was tested using the same data (n = 244) used in stage 3. The results of the CFA of the second-order model were similar to those of the first-order model, indicating a good fit to the data, S-B χ^2 (df) = 212.505 (51), p < .001, robust CFI = .938, TLI = .920, RMSEA = .064, SRMR = .051. Internal consistency and convergent validity

were evaluated by the values of CR = .786 and AVE = .561 for the second-order model, respectively.

Table 12

The Measurement Model for Off-Season Fan Engagement (*n* = 244)

Construct/Items	λ	*M*	*SD*	*CR*	*AVE*
OFE-C		4.094	1.677	.935	.783
1. I pay attention to anything about (my favorite team) during the off-season	.898				
2. I check posts related to (my favorite team)'s next season (e.g., draft, FA).	.936				
3. I spend time watching (my favorite team)'s legend games during the off-season.	.837				
4. I search for (my favorite team)'s behind-the-scenes content during the off-season.	.865				
OFE-S		3.483	1.667	.917	.736
1. I attend (my favorite team)'s fan events during the off-season.	.735				
2. I talk about issues of (my favorite team)'s next season with people in my daily life.	.880				
3. I share (my favorite team) related content with other fans during the off-season.	.890				
4. I discuss (my favorite team)'s off-season issues (e.g., training) with other fans online.	.915				
OFE-A		3.455	1.724	.915	.731
1. I am passionate about predicting (my favorite team)'s performance of next season.	.839				
2. I spend time creating content related to (my favorite team) during the off-season.	.754				
3. I enjoy participating in arguments with opposing fans during the off-season.	.926				
4. I wear apparel that represents (my favorite team)'s fan during the off-season.	.890				

Note. CR > .7, AVE > .5 (Fornell & Larcker, 1981)

According to the path coefficients, all first-order constructs (i.e., OFE-C, OFE-S, OFE-A) were significantly related ($p < .001$) with the second-order construct (i.e., off-season fan

engagement). However, the range of path coefficients was substantially large, from .570 (OFE-A) to .926 (OFE-S). In addition, the selection of competing models for the same data should be based on theoretical justifications (Bentler & Stein, 1992). The first-order model has been extensively applied to previous studies on engagement. Taken together, each first-order construct has its own unique characteristic, and thus, it would not be appropriate to integrate and describe them into a single construct. Therefore, in this study, the first-order model was selected as the structure of off-season fan engagement.

5.2. Main Study

5.2.1. Measurement

Based on the results of the pilot study, twelve items of off-season fan engagement consisting of OFE-C, OFE-S, and OFE-A were included in the questionnaire for the main study, along with 33 items of seven constructs (i.e., informativeness value, entertainment value, source credibility, attitude, intention to attend games, intention to consume sports media, team identification). The online questionnaire was created on the Qualtrics software system. Among self-report items, informativeness value and entertainment value were evaluated based on a seven-point semantic differential scale, and other constructs were evaluated based on a seven-point Likert-type scale with response categories.

5.2.2. Data Collection

Participants in the main study were recruited by email invitation to participate in the survey. The questionnaire was distributed to three southern public universities in the United States (i.e., Arkansas State University, University of Alabama, University of Mississippi). A total

number of 6,549 emails were sent, and the survey link included a research introduction, an online participant consent form, and a questionnaire. The survey link was available for four weeks. To encourage those who did not participate in the survey, three times reminding emails were sent to the target participants. Also, to prevent duplicate participation of each participant, IP addresses and emails were recorded in the database, and further access was denied. Of the 942 (response rate = 14.38%) respondents who opened the survey link, 574 (response rate = 8.76%) completed the survey.

5.2.3. Data Screening

The data screening process was performed following several steps to check for missing values, univariate outliers, multivariate outliers, and normality (DeSimone, Harms, & DeSimone, 2015). First, after checking for missing values, because the missing values were randomly placed in the dataset, 84 were excluded using a list-wise deletion method. Second, the median absolute deviation (MAD) was used to detect univariate outliers. The result showed that none of the MAD values exceeded the threshold of 3 (Leys, Ley, Klein, Bernard, & Licata, 2013), indicating there were no univariate outliers. Third, the Mahalanobis distances were calculated to check multivariate outliers. The results indicated that four cases were multivariate outliers. However, considering that the number of total samples is over 400, these four cases were included in the data set. Fourth, in order to test the normality assumption, the value of Mardia's coefficients, which are multivariate measures of skewness and kurtosis, were calculated. The results indicated that the multivariate normality assumption was violated in the data set (i.e., multivariate skewness coefficient = 1238.60, $p < .001$, multivariate kurtosis coefficient = 30.25, $p < .001$).

Therefore, the Satorra-Bentler's (1994) scaled (mean-adjusted) method was utilized in further data analysis.

5.2.4. Demographic Information

The demographic information of the 490 final participants is as follows. Participants in the main study were composed of a balanced mix of 277 males (56.53%), 207 females (42.24%), and 6 (1.23%) participants who chose not to disclose their gender. Nearly two-thirds (n = 349, 71.22%) of the participants were between the ages of 18 and 34, 24.49% (n = 120) of the participants were between the ages 35 – 54, and 4.29% (n = 21) of those aged 55 and older. The majority of the respondents were Caucasian (n = 327, 66.74%), with a mix of African American (n = 99, 20.20%), Asian (n = 28, 5.71%), Hispanic (n = 19, 3.88%), Native American (n = 10, 2.04%), and other (n = 7, 1.43%). With regard to employment status, 186 (37.96%) were undergraduate students, 131 (26.73%) were graduate students, 118 (24.08%) full-time employees, and 55 (11.23%) were part-time employees. Regarding respondents' household income, 133 (27.14%) were between the $30K and $60K, 114 (23.24%) were $10K and $30K, 101 (20.61%) were $60K and $90K, 96 (19.59%) were over $90K, and 46 (9.39%) were below $10K.

Additionally, in order to understand the respondents' sports consumption habits, they were asked the amount of money they spend on their favorite sport team per year. The result indicated that respondents spend an average of $520.56 (SD = 2953.01), ranging from $0 to $50K. In terms of the supporting years, respondents rooted for their favorite teams an average of 13.33 years (SD = 11.68) with a range of 1 to 60 years. Nearly half (n = 259, 52.86%) of the respondents had previous experience buying a season ticket, while 231 (47.14%) respondents

had never purchased a season ticket before. Lastly, 292 (59.59%) said they are willing to purchase season tickets next season, while 198 (40.41%) respondents are not willing to buy season tickets. The detailed descriptive statistics for the respondents are presented in Table 13.

Table 13

Participants Demographics Information for Stage 3

Variable	Group	*n*	*%*
Gender	Female	207	42.24
	Male	277	56.53
	Prefer not to say	6	1.23
Age	18 – 24 years	170	34.69
	25 – 34 years	179	36.53
	35 – 44 years	78	15.92
	45 – 54 years	42	8.57
	55 years +	21	4.29
Ethnicity	African American	99	20.20
	Asian	28	5.71
	Caucasian	327	66.74
	Hispanic	19	3.88
	Native American	10	2.04
	Other	7	1.43
Employment status	Undergraduate student	186	37.96
	Graduate student	131	26.73
	Full-time	118	24.08
	Part-time	55	11.23
Household income	Below $10K	46	9.39
	$10K – $30K	114	23.27
	$30K – $60K	133	27.14
	$60K – $90K	101	20.61
	Over $90K	96	19.59
Favorite sports league	MLB	91	18.57

	NBA	124	25.31
	NFL	109	22.24
	NHL	41	8.37
	EPL	99	20.20
	Other	26	5.31
Spending on favorite sports team (annually)	Below $50	173	35.30
	$50 – $100	90	18.38
	$100 – $250	110	22.45
	$250 – $500	76	15.51
	Over $500	41	8.36
Season ticket holder	Yes	259	52.86
	No	231	47.14
Willing to be a season ticket holder	Yes	292	59.59
	No	198	40.41
Total		490	100.00

5.2.4. Data Analysis

Before evaluating the measurement model, correlations among factors were calculated to test multicollinearity or singularity issues (see Table 14). As a result, all correlation coefficients among constructs did not exceed cut-off .85 (Kline, 2005) in this data set, indicating no extreme multicollinearity or singularity violations.

Table 14

Correlations Among Construct (*n* = 490)

Construct	1	2	3	4	5	6	7	8	9	10
1. IV	1									
2. EV	.717**	1								

3. SC	.682**	.677**	1							
4. AT	.622**	.554**	.569**	1						
5. OFE-C	.350**	.347**	.333**	.404**	1					
6. OFE-S	.283**	.287**	.307**	.338**	.740**	1				
7. OFE-A	.231**	.265**	.271**	.284**	.407**	.494**	1			
8. IAG	.290**	.253**	.249**	.364**	.589**	.590**	.516**	1		
9. ICSM	.259**	.232**	.260**	.384**	.632**	.593**	.541**	.630**	1	
10. TID	.226**	.215**	.270**	.270**	.361**	.318**	.297**	.344**	.305**	1

Note. Informativeness value (IV), Entertainment value (EV), Source credibility (SC), Attitude (AT), Conscious focus (OFE-C), Social interaction (OFE-S), Active participation (OFE-A), Intention to attend games (IAG), Intention to consume sports media (ICSM), Team identification (TID)
**$p < .01$.

5.2.4.1. Measurement Model

To evaluate the measurement model for all variables, a CFA was conducted by using Mplus 6.0 (Muthén & Muthén, 2010). Along with global fit indices (i.e., robust CFI, TLI, RMSEA, SRMR), CR and AVE values were also calculated to satisfy the degree of reliability and validity for each construct. The measurement model showed a significant S-B χ^2 value (S-B $\chi^2(df) = 1959.788$ (900), $p < .001$). The global fit indices indicated that this model has acceptable model fit (i.e., robust CFI = .925, TLI = .917, RMSEA = .049, SRMR = .048).

However, two items of the squared multiple correlation values were too low, which should be greater than .5 (Hair et al., 2010). Therefore, one item from the intention to attend games (.464) and the other from the intention to consume sports media (.474) were removed, and then CFA was performed using the revised data set again. The results are presented in Table 15. The results of the revised measurement model indicated that the S-B χ^2 was significant (S-B $\chi^2(df) = 1696.713$ (815), $p < .001$). The global fit statistics measure showed a better good fit in

the revised model (robust CFI = .934, TLI = .927, RMSEA = .047, SRMR = .046). Internal consistency and construct validity for each construct were also checked by calculating CR and AVE values in Table 15. All the CR values for each construct were greater than .70, indicating acceptable consistency (Hair et al., 2010). Also, AVE values of all constructs were exceeded cut-off .50, satisfying construct validity (Hair et al., 2010).

Table 15

Full Measurement Model (*n* = 490)

Construct/Items	*β*	*M*	*SD*	*CR*	*AVE*
Informativeness value		5.834	.936	.901	.646
1	.796				
2	.817				
3	.806				
4	.788				
5	.811				
Entertainment value		5.688	.965	.888	.615
1	.798				
2	.796				
3	.746				
4	.762				
5	.813				
Source credibility		5.695	.728	.860	.606
1	.722				
2	.780				
3	.818				
4	.792				
Attitude		5.877	.901	.855	.596
1	.766				
2	.769				
3	.781				
4	.771				
OFE-C		5.050	1.311	.808	.515
1	.616				
2	.695				

3	.739				
4	.806				
OFE-S		4.854	1.443	.860	.607
1	.722				
2	.780				
3	.818				
4	.792				
OFE-A		4.776	1.504	.856	.600
1	.841				
2	.704				
3	.825				
4	.719				
Intention to attend games		5.239	1.518	.932	.822
1	.905				
2	.922				
3	.892				
Intention to consume sports media		5.486	1.287	.863	.678
1	.829				
2	.804				
3	.837				
Team identification		4.588	1.101	.881	.515
1	.677				
2	.741				
3	.755				
4	.756				
5	.783				
6	.652				
7	. 645				

Note. CR > .7, AVE > .5 (Fornell & Larcker, 1981)

5.2.4.2. Hypothesized Structural Model

The third purpose of this study is to test the proposed research model explaining the role of off-season fan engagement between antecedents and outcomes. Although the measurement model for all constructs showed a good model fit, a reasonable model fit for the hypothesized structural model should be confirmed in order to perform further hypothesis testing. The results indicated that several global indices of the initial hypothesized structural model are an unsuitable

model for the next step in the analysis (i.e., robust CFI = .893, TLI = .889, RMSEA = .072, SRMR = .069).

To better the structural model's fit, modification indices were calculated. The modification index indicates how much better the model fit would be if the parameter were unconstrained (Strauss, Thompson, Adams, Redline, & Burant, 2000). Based on the modification index, several relationships having large residual covariance were specified. The process of allowing covariance was designed one by one by specifying one relationship that shows the largest modification index. Specifically, because the modification index between items of attitudes 3 and 4 was the largest (156.184), a covariance between them was allowed first. Then, the relationship between OFE-S 3 and OFE-S 4 items was allowed to be correlated, with the modification index taken into account (136.025). Lastly, the covariance was allowed to the relationship between intention to attend games 1 and 2 on the basis of the modification index (55.751). As a result, the goodness of fit of the hypothesized model indicated a reasonable fit (S-B $\chi^2(df)$ = 1921.528 (576), $p < .001$, robust CFI = .904, TLI = .902, RMSEA = .063, SRMR = .051).

5.2.4.3. Hypotheses 1 through 6

The hypothesized structural model of this study consisted of five hypotheses dividing into 12 direct paths. Path analysis was performed to examine individual standardized path coefficients. The standardized path coefficients represent the change in the dependent variable for each change of the predictor variable in the proposed model (Kline 2005). The results are illustrated in Figure 7 and Table 16.

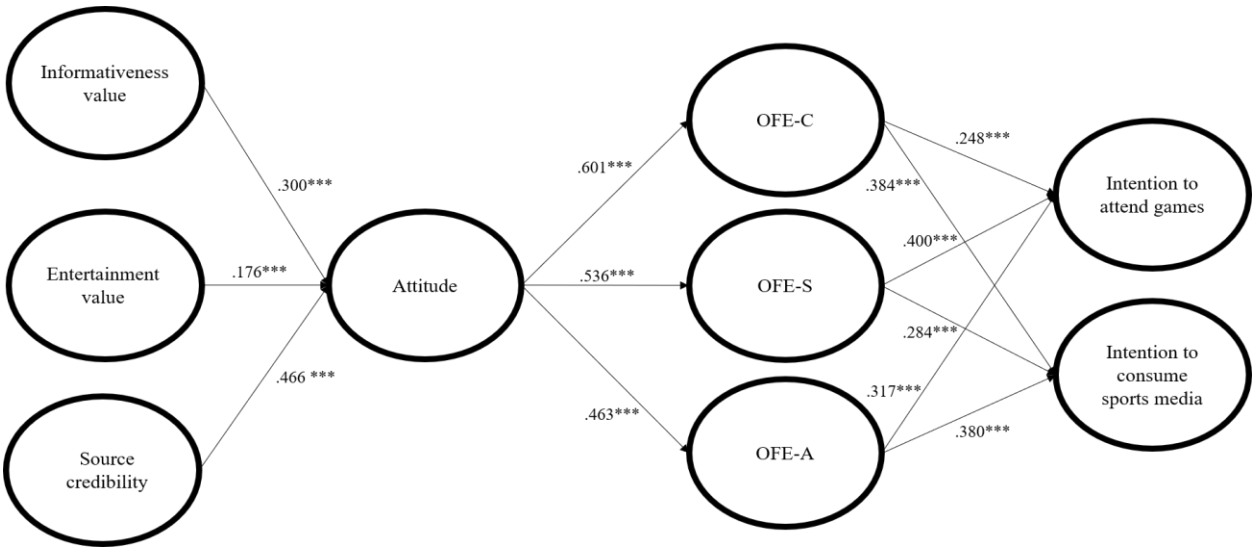

Figure 7

Results of the Hypotheses Testing—Direct Effects

Table 16

Parameter Estimators of Direct Effects in the Hypothesized Model (*n* = 490)

Structural relationships	Standardized coefficient	*SE*	*t*	Hypothesis testing
H1. Informativeness value → Attitude	.300	.073	3.640***	Supported
H2. Entertainment value → Attitude	.176	.032	4.111***	Supported
H3. Source credibility → Attitude	.466	.120	5.077***	Supported
H4a. Attitude → OFE-C	.601	.086	10.467***	Supported
H4b. Attitude → OFE-S	.536	.095	9.074***	Supported

H4c. Attitude → OFE-A	.463	.088	8.194***	Supported
H5a. OFE-C → Intention to attend games	.248	.057	5.546***	Supported
H5b. OFE-S → Intention to attend games	.400	.056	8.280***	Supported
H5c. OFE-A → Intention to attend games	.317	.054	7.016***	Supported
H6a. OFE-C → Intention to consume sports media	.384	.046	7.626***	Supported
H6b. OFE-S → Intention to consume sports media	.284	.042	5.835***	Supported
H6c. OFE-A → Intention to consume sports media	.380	.044	7.678***	Supported

***$p < .001$.

In particular, path coefficients from informativeness value (H1) and entertainment value (H2) to attitude were positive and statistically significant (H1: standardized $\gamma = .300$, $SE = .073$, $p < .001$; H2: standardized $\gamma = .176$, $SE = .032$, $p < .001$). In terms of path from source credibility to attitude (H3), the standardized beta coefficient was positive and significant (standardized $\gamma = .466$, $SE = .120$, $p < .001$). Hypotheses 4a through 4c proposed that attitude has positive impacts on conscious focus, social interaction, and active participation. Consistent with this, attitude has a positive impact of .601 on conscious focus (H4a: standardized $\gamma = .601$, $SE = .086$, $p < .001$), .536 impact on social interaction (H4b: standardized $\gamma = .536$, $SE = .095$, $p < .001$), and .463 impact on active participation (H4c: standardized $\gamma = .463$, $SE = .088$, $p < .001$). The paths from conscious focus (H5a), social interaction (H5b), and active participation (H5c) to the intention to attend games were positive and significant (H5a: standardized $\gamma = .248$,

SE = .057, $p < .001$; H5b: standardized $\gamma = .400$, *SE* = .056, $p < .001$; H5c: standardized $\gamma = .317$, *SE* = .054, $p < .001$). Lastly, the path from conscious focus (H6a), social interaction (H6b), and active participation (H6c) to the intention to attend games were positive and significant (H6a: standardized $\gamma = .384$, *SE* = .046, $p < .001$; H6b: standardized $\gamma = .284$, *SE* = .042, $p < .001$; H6c: standardized $\gamma = .380$, *SE* = .044, $p < .001$). Therefore, all hypotheses were supported in the hypothesized structural model.

5.2.4.4. Hypotheses 7 through 8

Based on the theoretical framework, two moderating effects (i.e., social media use and team identification) were proposed (Table 17). First, to assess the moderating role of social media use in the relationship between source credibility and attitude (H7), the interaction

Table 17

Parameter Estimators of Moderating Effects in the Hypothesized Model (*n* = 490)

Structural relationships	Standardized coefficient	*SE*	*t*	Hypothesis testing
H7. Source credibility * Social media use → Attitude	.310	.134	2.308*	Supported
H8a. Attitude * Team identification → OFE-C	.125	.046	2.718**	Supported
H8b. Attitude * Team identification → OFE-S	.199	.053	3.703***	Supported
H8c. Attitude * Team identification → OFE-A	.119	.057	2.102*	Supported

*$p < .05$. **$p < .01$. ***$p < .001$.

variable was created (social media use * source credibility). As shown in Figure 8, the path estimate of the interaction effect of social media use and source credibility on attitude was statistically significant (H7: standardized $\gamma = .310$, $SE = .134$, $p < .05$). The result indicates that light users have positive attitudes when a high level of source credibility but have relatively lower attitudes than medium users. Heavy users have more positive attitudes when a high level of source credibility, and they also have overall higher attitudes than medium users. The difference in the slopes shows that the type of media use performs a moderating role in the relationship between source credibility and attitude toward sport organizations.

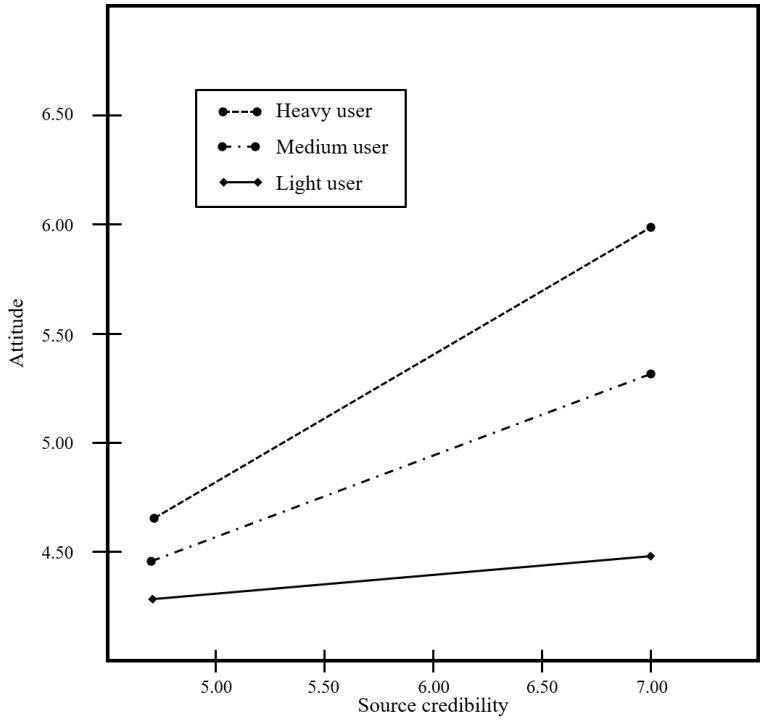

Figure 8

Moderating Effect of Social Media Use

Second, to assess the moderating role of team identification in the relationship between attitude and OFE-C (H8a), OFE-S (H8b), and OFE-A (H8c), the three interaction variables were created (team identification * OFE-C, team identification * OFE-S, team identification * OFE-A). In particular, in support with hypothesis 8a, the path estimates of the interaction effect of team identification and OFE-C on attitude was statistically significant (H8a: standardized $\gamma = .125$, $SE = .046$, $p < .01$) (see Figure 9). In addition, as shown in Figure 10, the interaction effect of team identification and OFE-S on attitude was statistically significant (H8b: standardized $\gamma = .195$, $SE = .053$, $p < .001$).

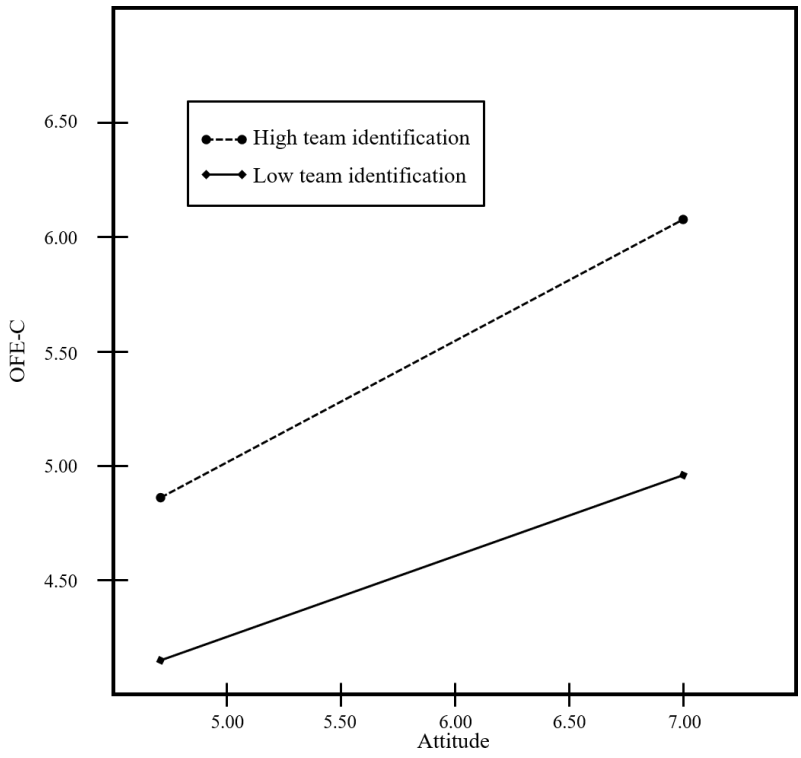

Figure 9

Moderating Effect of Team identification on OFE-C

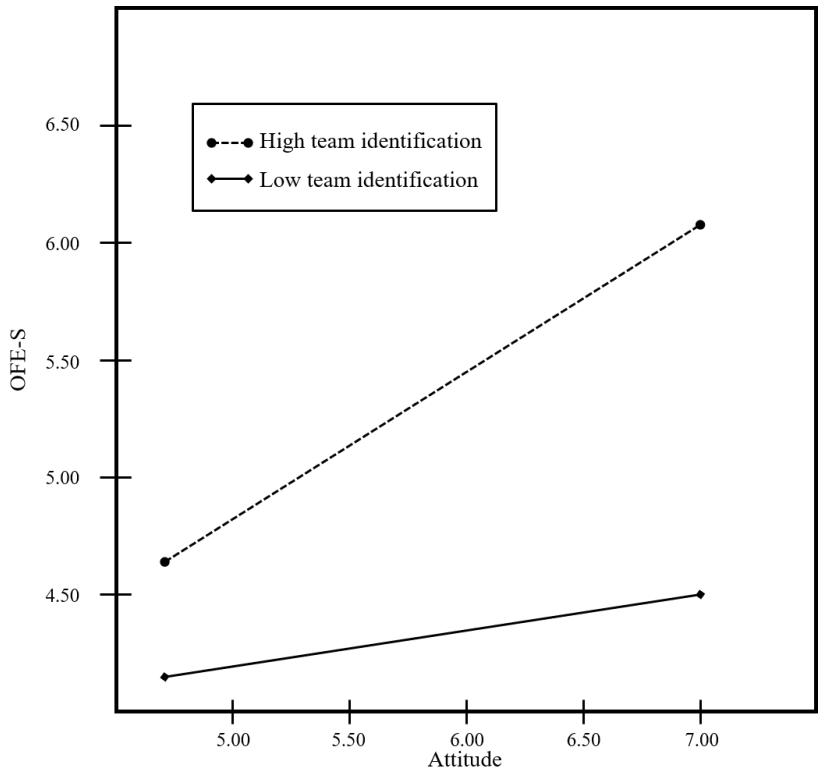

Figure 10

Moderating Effect of Team identification on OFE-S

With regards the hypothesis 8c, there was a significant moderating effect of team identification in the relationship between OFE-A and attitude (H8c: standardized $\gamma = .119$, *SE* = .057, $p < .05$) (see Figure 11). The results of hypotheses 8a through 8c indicated that lowly identified fans have high engagements with teams in the off-season when they have a positive attitude but are relatively less engaged than highly identified fans. Fans who have high levels of team identification have more high engagements with teams when they have a positive attitude, and they also have overall higher engagement levels than other fans.

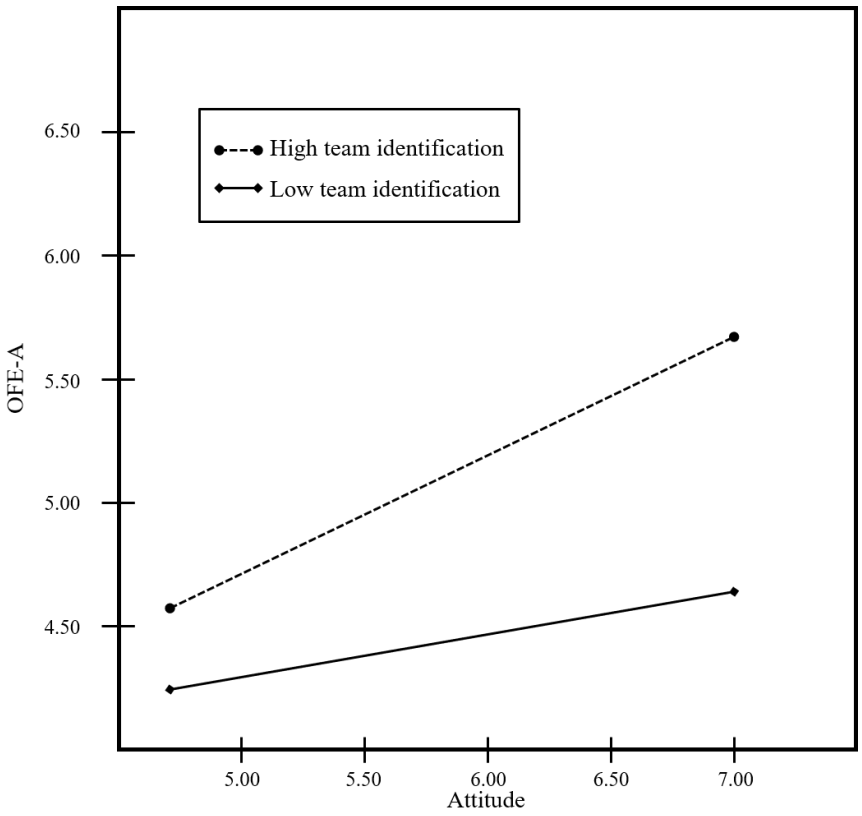

Figure 11

Moderating Effect of Team identification on OFE-A

CHAPTER VI

DISCUSSIONS

Understanding and predicting sport fans' behaviors have been regarded as a vital part of the operation of sport organizations. These have become increasingly essential in recent years as fans' sports consumption has evolved and diversified (Wann & James, 2018). Traditional approaches in sport management that focus primarily on in-season consumption are no longer sufficient to address the concerns surrounding fan engagement in today's fast-paced online environment.

Within the sport management field, Toffler (1990) explored the distinctive feature of sport organizations, referring to organizations that expand and shrink their operations cyclically, on a yearly basis. Despite the fact that this approach offers new insight into the unique situation of sport organizations and helps understand the behavior of fans by season, a lack of research and practice has left some questions unanswered. Thus, these research questions are posited in the current study: (1) How does the season distinction approach apply to understanding fan engagement in the field of sport? (2) How can off-season fan engagement be measured? (3) What is the role of off-season fan engagement in sport consumption in a succeeding season? The answers to these questions are found in the final chapter.

This chapter is divided into three parts. First, the main findings in the pilot study and the main study are discussed. Each explanation for significant results is presented. The second part

of this chapter discusses the theoretical and practical implications regarding year-round fan engagement. For both scholars and practitioners, the importance of off-season fan engagement in understanding fan behavior is underscored in this section. Third, considering the study's limitations, future research directions are presented in conclusion.

6.1. Findings in the Pilot Study

Before conducting the test of the proposed research model in the main study, developing a reliable and valid scale of off-season fan engagement was necessary. Following Churchill's (1979) recommendation, the scale development protocol was employed, which included three specific processes: (1) exploration of a list of off-season fan engagement activities, (2) development of a set of initial questions for each construct, and (3) conducting CFA and comparing the model structures to finalize the questionnaire.

To begin, exploring a variety of off-season fan engagement activities that fans actually do these days was required. Through an online focus group, a variety of behaviors were discovered that have not been addressed academically. For example, fans follow individuals' non-official accounts in addition to their official accounts to keep up-to-date with news and even rumors.

"I follow my favorite sports teams on Instagram, bleacher report, and twitter. I also follow the individual fans and players on their accounts to keep up with sports news, trade rumors, and their individual workouts."

In addition, although it was excluded from the list, a considerable number of fans reported soothing their longing for sports by playing sport-related virtual games in the off-season (e.g., NBA 2K, Madden NFL). Considering the increasing trend of eSports, there is a need for an in-depth discussion about these behaviors.

"During the off-season, me and my friends play video games like NBA 2K to stay entertained…"

"… on Xbox I play Madden that involve the sport is football and soccer during the off-season…"

Second, developing a set of items required defining each construct of off-season fan engagement and verifying with scholars in the field of sport management that each question is well-fitted in each construct. As explained earlier, the name of each construct was determined to reflect its characteristics. In addition, the definition of the OFE-C construct was modified that the degree of interest an individual has or wishes to have in involvement with the focus on a favorite team by removing the term interaction from the statement. This was because, rather than representing interactions among fans, this construct refers to the degree to which an individual is interested in or wants to concentrate on his or her favorite teams.

"For the first factor, it is recommended to consider eliminating 'interaction' because interaction usually means human actions."

Another item, originally developed as an item in the OFE-S construct (i.e., I enjoy participating in arguments with opposing fans of my favorite team), was moved to the OFE-A construct. Based on experts' recommendations, it was concluded that arguing with opposing fans should be interpreted as an action that differs in nature from communicating with fellow fans.

Third, the initial questionnaire developed in the second step of the pilot study was evaluated through a CFA and the structures between the first-order model and the second-order model were compared. The results indicated that the level of off-season fan engagement could be measured as a first-order model consisting of OFE-C, OFE-S, and OFE-A. In addition, the investigation of the second-order model contributed to understanding how different the

characteristics of each construct were. These findings support earlier research that suggests a multimodal structure for measuring fan engagement (Yoshida et al., 2014).

Overall, based on the goodness of model fit, evidence related to internal consistency, and construct validity for constructs of off-season fan engagement, it was confirmed that this scale could be used for the main study without modifications.

6.2. Findings in the Main Study

This section covers the findings in the main study derived from a three-step analysis. As a first step, CFA was conducted to verify the validity and reliability of the constructs in the measurement model. It is important to test the validity and reliability of the measurement model prior to testing the significance of the relationships among constructs (Fornell & Larcker, 1981). Next, the empirical test of direct effects (H1 through H6c) was conducted through SEM. Finally, the moderating effects of social media use (H7) and team identification (H8a through H8c) were examined.

Before discussing the results of hypothesis testing, several findings of the measurement model should be noted. First, in CFA, two items were removed from outcome factors (i.e., intention to attend games, intention to consume sports media) due to low factor loadings. One item removed from the intention to consume sports media was, "*I will listen to [my favorite team]'s game on the radio next season.*" The target sample group being made up of young adults who mainly use online media platforms could explain why the factor loading of this item was relatively low. Along with this item, an item eliminated from the intention to attend games category was, "*I will spend money to attend sporting events of [my favorite team] next season*." One possible explanation is that their willingness to attend a game may not necessarily mean

they will spend money. In particular, students, who accounted for a large portion of the sample, have a variety of opportunities to attend sporting events without paying.

Second, three relationships between items were detected in modification indices with large residual covariance (i.e., attitude 3 with 4, OFE-S 3 with 4, intention to attend games 1 with 2). One plausible explanation is that this resulted from systematic measurement errors (Bryne, 2012). Because these items are arranged on a single line on the questionnaire, and both used similar wordings, respondents might answer without much consideration. For example, OFE-S 3 ("I share [my favorite team] related content with other fans during the off-season.") and OFE-S 4 ("I discuss [my favorite team]'s off-season issues with other fans in online.") could be interpreted as overlapping content representing an individual's interaction with other fans.

6.2.1. Hypothesis Testing

One of the purposes of this study was to examine the effects of influences on off-season fan engagement and the consequences of off-season fan engagement related to sport consumption in the coming season. When it comes to the antecedents of off-season fan engagement, in particular, the ELM was applied to this study because it focuses on the information process regarding how people understand given information and address it (Petty & Cacioppo, 1983). This approach is suitable for exploration of the behaviors of fans in online environments during the off-season. This study proposed six hypotheses related to the relationship between two variables.

6.2.1.1. Hypothesis 1 and 2

The first research hypothesis was proposed to confirm whether the content value, as a central route of the ELM, influences fans' attitudes in the sports setting. It was shown that the relationship between informativeness and attitude was significant in the hypothesized direction, as correctly predicted by Hypothesis 1. This result is consistent with previous research, in which informativeness value of media contents impacted audiences to form positive attitudes (Dao et al., 2014).

The relationship between entertainment and attitude (Hypothesis 2) was also significant, consistent with the importance of the role of entertainment value shown in Ducoffe's (1995) research on Web advertising. Both results indicate that informativeness and entertainment value are the key components that affect the formation of fans' attitudes toward sport organizations. These results support the initial part of the theory of mind-processing (Baron-Cohen, Leslie, & Frith, 1985; Saxe, Carey, & Kanwisher, 2004) that value causes attitudes and then influences intention of behavior sequentially. However, standardized path coefficients between two variables differed slightly—informativeness value was 0.300, and entertainment value was 0.176. This demonstrates that fans may prefer to obtain information related to their favorite teams (e.g., draft picks, free agent news, player roaster) from online content rather than while just having fun, in particular, during the off-season.

6.2.1.2. Hypothesis 3

The relationship between source credibility and attitude was significant, as suggested by Hypothesis 3. This means that as a peripheral route, source credibility could drive fans to form positive attitudes, and these attitudes may be formed without full deliberation on the given content. This result supports previous research on the effect of perceived source credibility on

attitude toward the focal object (e.g., Nan, 2013). Specifically, the findings indicate that trustworthiness, competence, attribute, and technology affordance, as sub-constructs of source credibility, describe fans' information processes linked to their attitudes. In sports settings, sport fans use media platforms to consume online content related to their favorite teams throughout the year (Bonds-Raacke & Raacke, 2010), and thus they are exposed to a lot of information, which may have the expected value or not. Therefore, based on the results of this study, it is expected that sport organizations with higher source credibility (e.g., high trustworthiness, frequent updates) can help increase their fans' positive attitudes.

6.2.1.3. Hypothesis 4

The results of the current study confirmed a positive relationship between fans' attitudes and off-season fan engagement, as correctly predicted by Hypothesis 4. In particular, this study divided fan engagement into three types, according to their characteristics, to specifically understand the behavior of fans during the off-season, and each of them was confirmed to have a significant relationship with attitude. A favorable attitude toward a sport organization has been considered a crucial factor in fans' consumption of sports (Alexandris et al., 2007; Speed & Thompson, 2000). These findings support previous sport consumer behavior research on individual fans' tendency to consume sport more frequently when they have favorable attitudes toward sport teams (e.g., Madrigal, 2001; Cornwell et al., 2006). It is rational to expect that they will engage with sport organizations following three types of activities in the off-season, if they form favorable attitudes toward them.

6.2.1.4. Hypothesis 5 and 6

The present research verified the predictions in Hypotheses 5 and 6 regarding the positive relationship between off-season fan engagement and intention to attend games as well as off-season fan engagement and intention to consume sports media, respectively. These results indicate that fans with high levels of off-season fan engagement are more likely to perform both transactional (e.g., attending games) and non-transactional behaviors (e.g., positive word-of-mouth).

Because sports consumption is not just an individual activity (Katz, Heere, & Melton, 2020), the role of social interactions (Trail & James, 2001) has been emphasized in continuing sports consumption behaviors. Previous studies are supported by the results of this study based on the fact that interacting with other fans via online environments during the off-season influences the next season's sports consumption intention. Moreover, from the sport organizations' perspective, understanding and predicting fans' sports consumption behaviors is vital to team operation throughout the year. In other words, the importance of predicting what will happen next season, not in the far-off future, is very helpful in the specific planning of team management. Piché and Naraine (2021) recently examined the positive relationship of social media engagement (i.e., likes, shares) between off-season and in-season in the Women's National Basketball Association and affirmed that, in the current context, the level of fans' off-season fan engagement would play a key role in their sports consumption in the coming season.

6.2.2. Hypothesis Testing: Moderating Effects

On the basis of the significant direct effects among variables in the hypothesized model, two additional hypotheses regarding the moderating effects were examined. The important assumption for a moderating effect is that the interaction effects exist only when a predictor

impacts a dependent variable (Hayes, 2017). The moderating effect of two variables—social media use (H6) and team identification(H7a through H7c)—were examined.

6.2.2.1. Hypothesis 7

To further illuminate the association between source credibility and attitude, the researcher examined the interaction effect of social media use on this relationship. The result indicates that social media use is a conditional factor that shapes the relationship between source credibility and attitude, supporting Hypothesis 7. Specifically, source credibility creates a strong favorable attitude toward sport organizations among fans who are heavy social media users compared to those who are light users. It should be noted that, in the case of low source credibility, the level of attitude toward sport organizations between the two groups of media users (i.e., heavy or light) does not differ. These results could be due to the fact that heavy users are exposed to online content more often, which in turn makes them more sensitively responsive to increased source credibility levels.

6.2.2.2. Hypothesis 8a through 8c

In discussing the relationship between attitude and off-season fan engagement, three hypotheses regarding the moderating effect of team identification were proposed: team identification's moderating effect on the relationship between attitude and (1) OFE-C (H8a), (2) OFE-S (H8b), and OFE-A (H8c). It was verified that team identification was a significant conditional factor that shaped each relationship between the two variables. The unique sport context can evoke a close relationship between attitude and team identification (Dwyer, 2013). Therefore, when fans have more positive attitudes, their higher level of team identity can show a

more active conscious interest, communication with other fans, and enthusiastic participation with their preferred sports team than those with a low level of team identification.

6.3. Implications of Findings

The current study has a number of important implications for academia and practitioners. First, from a theoretical standpoint, by applying the season distinction approach, this study advances knowledge of sport fans' behaviors in the field of sport management. This study is the first attempt to suggest year-round fan engagement in understanding fans' psychological processes and behaviors. The uniqueness of sport has been the cornerstone of theoretical advances in the discipline of sport management (Cunningham, 2013), and scholars have emphasized the importance of developing sport-specific theories (Chalip, 2006; Fink, 2013). The fact that sport leagues operate seasonally is one of the aspects that differ markedly from other fields. This study focuses on this unique feature and provides a conceptual framework for year-round fan engagement, including possible antecedents, moderators, and outcomes. In particular, the study extends the concept of fan engagement by dividing it into off-season and in-season. Since the fan engagement concept was introduced by Yoshida and colleagues (2014), previous sport consumer studies have focused on fan behaviors, regardless of the season (e.g., Vale & Fernandes, 2018; Wakefield, 2016). However, because fans' behaviors vary depending on the season, their different characters need to be taken into account. Considering that engagement is not a temporary behavior but gradually increases over time (Brodie et al., 2011), the year-round fan engagement conceptual model with off-season fan engagement in this study can serve as the foundation for developing a new theory in the field of sport management.

Second, by incorporating the literature of ELM into fan engagement, this study suggests a new perspective of understanding sport fan behaviors in today's environment. Such theoretical adaptations are effective approaches to broaden the fundamental theory while also improving its explanatory power across a variety of study topics (Bhattacherjee & Sanford, 2006). Based on the fact that, during the off-season, fans mainly engage with their team through online environments, this study focuses on fans' information processes that consist of the central (i.e., content value) and peripheral routes (i.e., source credibility). The findings demonstrate that both central and peripheral routes are viable ways to influence fans' positive attitudes, which is an antecedent of off-season fan engagement. As such, this study provides evidence that not only is ELM well-fitted for an understanding of sport fan behaviors but also that theoretical extensions through an entirely different context may be a necessary and appropriate approach for sport scholars to understand sport fan behaviors.

Third, the significance of this study lies in identifying the role of social media use and team identification. Media use types have been used to understand peoples' media-related behaviors, including information processes (e.g., Bernhaupt & Pirker, 2014; Burnett, Menon, & Smart, 1993). In this current study, social media use was tested as a moderator to explore its role in leading fans to form positive attitudes toward sport organizations when consuming online content. A noteworthy issue is that social media use is heavily involved in the attitude-building process of fans through interaction with source credibility. The results provide further explanation of the moderating role of type of media use in understanding sport fan behaviors, especially in online environments.

Additionally, in the case of team identification, this study investigated the interaction effects of attitude and team identification on three types of off-season fan engagement. The

example in this study revealed an increase in the emphasis on team identification showing that off-season fan engagement, which increases as attitude changes positively, increases more rapidly according to the fans' level of team identification. In other words, it was confirmed that team identification is important in explaining various fan engagement activities. On the whole, this research provided empirical evidence of how fans' strong team identification is generated and intensified by off-season fan engagement.

Fourth, this study created a more targeted questionnaire for off-season fan engagement, especially by classifying three types of constructs (i.e., OFE-C, OFE-S, OFE-A). Through its pilot study, which included a series of procedures involving qualitative and quantitative analyses, the current study investigated and categorized a variety of behaviors. Based on these, a questionnaire was established with reasonable reliability and validity levels. In particular, conducting the structural model comparison to evaluate the hierarchy of the construct also proved useful in finding an adequate model for assessing off-season fan engagement. By adding new items and changing some of those found in a general consumer engagement questionnaire to adapt them to sport fan-oriented items, this study provides a more concrete instrument for scholars in the field of sport management.

The implications of this study also extend to practice in the sport industry. First, the findings are expected to help managers in sport organizations have a new perspective of fan management through insight into off-season fan engagement. Rather than just focusing on the behaviors of their fans during the in-season, this study highlights the importance of maintaining the level of fan engagement in the off-season. In this regard, the study presents a roadmap for managers to build fan management strategies that continuously increase fans' transactional behaviors in the succeeding season. Managers are challenged in today's highly competitive

climate to determine how to attract new fans as well as retain their existing fans. According to the conceptual framework, therefore, sport organizations need to provide channels (e.g., streaming services, fan forums) and a variety of content (e.g., draft prediction, rerunning the season's best moments) that stimulate fans to not only maintain their current level of fan engagement but also to prevent them from switching their fan loyalty to another team in the off-season.

Second, the findings from this study highlight the importance of content value and source credibility to engage fans during the off-season and generate outcomes in the coming season. Based on the current study, sport organizations have a chance to enhance their understanding of what fans value in online environments. By providing content designed to meet the informativeness and entertainment expectations of fans and enhancing the extent of credibility, fans' attitudes toward the team will be formed and changed more favorably. In this sense, sharing up-to-date news related to individual athletes, the coaching staff, and teams using various content types (e.g., photos, videos, GIFs) will help encourage higher levels of fan engagement. At the same time, managers should make an effort to enhance the perceived source credibility. This could be achieved by developing a strategic design of reliable content and sharing well-documented information (Xu, Margolin, & Niederdeppe, 2020).

Another practical contribution for practitioners in sport organizations is that, in addition to the antecedent factors, analyzing the moderators (i.e., social media use, team identification) in this study might be useful sources for developing online marketing strategies. The consumption patterns in online environments among fans vary depending on the level of team identification and social media use. In other words, it is important to recognize these different characteristics among fans when implementing online communication strategies.

For example, considering the characteristics of OFE-C, highly identified fans are more interested in learning about the teams' statistics and history and tend to demonstrate their loyalty to the team using this knowledge. Thus, creating quizzes for fans and hosting online events (e.g., fun quiz competition) during the off-season would be a trigger to encourage fans to become more engaged with the team. Also, practitioners can offer content that allows interaction beyond one-way communication by focusing on OFE-S. Such interactive features can enhance sport fans' attitudes toward sport organizations and result in improved engagement. Lastly, given that OFE-A is related to emotional bonds, providing content that creates strong emotional connections with fans by utilizing storylines (e.g., history, rival teams) may lead to an enhanced level of fan engagement.

6.4. Limitation and Directions for Future Research

This study generates fruitful findings that not only expand research on fan behaviors and suggest a new perspective of year-round fan engagement but also inspire sport practitioners through empirical evidence. Nevertheless, as with any other study, this research has certain limitations that should be acknowledged. In this section, five limitations are described and the directions for future research are presented that would utilize the approaches taken in the study.

First, this research takes a general approach regarding ELM. Although ELM has been widely regarded as a useful theoretical model to explain a study's information process, several researchers have attempted to improve its explanatory power by using the extended ELM, such as incorporating narrative effects (Slater & Rouner, 2002) and privacy concerns (King-Kizito & Sun, 2018). In this sense, it is meaningful to explore a new influence and provide a better understanding of fans' information processes. Therefore, future researchers are encouraged to

examine other plausible constructs of central and/or peripheral routes, such as social presence and connectedness (Cyr, Head, Lim, & Stibe, 2018). Moreover, beyond these two routes of ELM, the influence of external elements (e.g., past season records, teams in other sports leagues, and mega-sporting events) proposed in the conceptual framework need to be investigated.

Second, this study developed the concept of off-season fan engagement and its questionnaire by applying the season distinction approach. However, the need for the scale of in-season fan engagement remains. Although many previous studies have investigated fan experiences related to sporting events, not many have explored how fans consume sports these days. Considering the fact that the boundary between online and offline is blurring in the experience of fans (e.g., using mobile devices at stadiums), it is time to develop a new questionnaire for measuring in-season fan engagement based on the current sport consumption trends.

The third limitation of this study is the sample's homogeneity. Most participants were recruited from the collegiate community, making generalization difficult. Because young adults are considered digital natives (Prensky, 2001) and more likely to use online content than other age groups, the sample group should be expanded to understand the behavior of fans overall. Surveying study participants in all age groups and exploring differences in the level of fan engagement according to age during the off-season and in-season would be useful. Considering that senior fans are less likely to be exposed to online surveys, future researchers need to conduct paper surveys at sporting events. Such future studies would help sport organizations develop more targeted marketing strategies.

The fourth limitation of this study relates to the impact of the COVID-19 pandemic. The data collections for this research were carried out during the pandemic that undoubtedly affected

fans and their relationships with sport organizations. These periods may occur recall bias of respondents and respondents might interpret differently the meaning of the next season (e.g., post-COVID-19 or still in the pandemic) when answering the survey. Therefore, future research should consider how to thoroughly control unexpected sampling bias associated with COVID-19 in data collection. In addition, follow-up studies consistent with this study need to be performed in the post-COVID-19.

The final limitation is that, although game attendance and sports media consumption intentions for the coming season were investigated as outcomes of off-season fan engagement, this could not be confirmed due to time constraints. Because these data were collected at one moment in time using the cross-sectional method, there was no follow-up to investigate fans' actual future behaviors. Therefore, longitudinal research should be designed to confirm these predictions and verify the appropriateness of the proposed model. Future research could seek evidence related to the stability of engagement levels throughout the year and whether it is influenced by season.

6.5. Conclusion

With the growing importance of fan engagement in the field of sport, research on how to define and utilize this is increasing. The current study was driven by essential research questions, including how fan engagement is understood in the field of sport, how off-season fan engagement is measured, and what the role of off-season fan engagement is in the framework of sport fans' behavior. This study provides a conceptual framework to assess year-round fan engagement by applying the season distinction approach and offers empirical evidence through data analyses. The hypothesized research model was developed and examined based on a

theoretical framework consisting of content value, source credibility, attitude, off-season fan engagement, intention to attend games, and intention to consume sports media. One result was that informativeness and entertainment value were determined as predictors of attitude, which is, in turn, a predictor for three types of off-season fan engagement (i.e., OFE-C, OFE-S, OFE-A). In addition, each aspect of off-season fan engagement predicted two intentions related to sports consumption, as proposed by the research hypotheses. Based on the significant paths of direct effects, the moderating roles of social media use and team identification were examined. Both moderators influenced effects between antecedents and outcomes in the model. Overall, the current study represents an extension of the promising areas of fan engagement, and it ultimately works toward a better understanding of fan behavior.

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List of Appendices

APPENDIX A
HUMAN SUBJECTS COMMITTEE APPROVAL MEMORANDUM

To: Han Soo Kim,

This is to inform you that your application to conduct research with human participants, “A conceptual framework of year-round fan engagement: A new approach of sport fan behavior" (Protocol #21x-144), has been determined as Exempt under 45 CFR 46.101(b)(#2). You may proceed with your research.

Please remember that all of The University of Mississippi’s human participant research activities, regardless of whether the research is subject to federal regulations, must be guided by the ethical principles in The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research.

It is especially important for you to keep these points in mind:

- You must protect the rights and welfare of human research participants.
- Any changes to your approved protocol must be reviewed and approved before initiating those changes.
- You must report promptly to the IRB any injuries or other unanticipated problems involving risks to participants or others.
- If research is to be conducted during class, the PI must email the instructor and ask if they wish to see the protocol materials (surveys, interview questions, etc.) prior to research beginning.

If you have any questions, please feel free to contact the IRB at irb@olemiss.edu.

Miranda L. Core
IRB Administrative Office
Research Compliance Specialist, Research Integrity and Compliance
Office of Research and Sponsored Programs
The University of Mississippi
212 Barr Hall
University, MS 38677-1848

APPENDIX B

ELECTRONIC INFORMED CONSENT FORM

Thank you for your willingness to participate in this survey. Before you start, please read this consent document carefully.

Purpose of the research study:

1) to provide a conceptual framework of year-found fan engagement
2) to examine the effects of various influences on off-season fan engagement
3) to investigate the role of off-season fan engagement in predicting sport fan behavior.

What you will be asked to do in the study:
You will be asked to fill out a questionnaire that will take approximately 7-10 minutes to complete.

Risks and Benefits:
There are no known risks associated with this study. We do not anticipate that you will benefit directly by participating in this research.

Confidentiality & Voluntary participation:
Your identity will be kept confidential to the extent provided by law. Your participation in this study is completely voluntary. There is no penalty for not participating. You have the right to withdraw from the study at any time without consequence.

Whom to contact if you have questions:
Han Soo Kim, Ph.D.(c)

Sport and Recreation Administration
Department of Health, Exercise Science, and Recreation Management
University of Mississippi

Agreement:
By clicking below, I acknowledge that I have read the procedure described above and I voluntarily agree to participate in the procedure.

O I agree

APPENDIX C

A FORM OF ONLINE EXPERT SURVEY

- **Background**
  - Fan engagement was defined as a sport consumer's extra-role behaviors in non-transactional exchanges to benefit his or her favorite sport team, the team's management, and other fans (Yoshida, Gordon, Nakazawa, & Biscaia, 2014). They considered that fan engagement is a multidimensional concept, including behavioral construct composed of management cooperation, prosocial behavior, and performance tolerance.

- **Why do we need off-season fan engagement scale (OFES)?**
  - Recently, sport fans' behaviors have been diversified, and the differences in fan engagement behaviors have become clear between in-season and off-season. For example, advances in media technology have given fans more opportunities to communicate with their team even when there is no live game. Since there are limitations in identifying specific fans' behaviors through existing fan engagement scales, it is emphasized the necessity of developing new scales to measure the level of fan engagement throughout the year.

  - In line with Vivek and colleagues' (2012, 2014) research on customer engagement, OFES can be defined as the intensity of an individual's participation in and connection to a sport organization's offerings or their activities through the year. OFES is manifested cognitively, affectively, behaviorally, and socially, and involves the connection that fans form with organizations, based on their experiences rather than exchanges. OFES aims to cover sport fans not only online behaviors bur also offline behaviors during the off-season.

- **Three constructs**
  - Consuming (Conscious attention) → Item #1 - #7

    : The degree of interest an individual has or wishes to have in involvement with the focus of a favorite team. It defined as a fan's level of team-related concentration in particular a degree of concentrated team-related thought and/or attentiveness. It reveals the extent of individuals' cognitive investment in specific sport organizations.

  - Contributing (Social connection) → Item #8 - #11

    : Enhancement of the interaction based on the inclusion of others with the focus of engagement, indicating mutual or reciprocal action in the presence of others. This construct includes the notion of interaction, dialogue, participation, and sharing of team-related values and contents.

  - Creation (Enthused participation) → Item #12 - #16

    : The zealous behaviors of a person related to involvement with a favorite sport team. It reveals an individual's strong and positive behavior for the team. Within this construct, the notion of initiating an activity associated with the team is also included.

Items	Relevance (1-10)	Importance (1-10)
1. I pay attention to anything about (favorite team) during the off-season.		
2. I check posts related to (my favorite team)'s next season.		
3. I spend time watching (my favorite team)'s legend/alumni games during the off-season.		
4. I search for behind-the-scenes content of (my favorite team) during the off-season.		
5. I search for (my favorite team) related accounts on social media during the off-season.		
6. I reveal through social media that I am a fan of my favorite team during the off-season.		
7. I am aware of my favorite team-related accounts on social media during the off-season.		
8. I attend (my favorite team)'s fan events during the off-season.		
9. I talk about off-season issues related to (my favorite team) with friends.		
10. I share (my favorite team) related content with other fans during the off-season.		
11. I discuss (my favorite team)'s off-season issues with other fans online.		
12. I predict the performance of (my favorite team) next season.		
13. I enjoy engaging in arguments with opposing fans during the off-season.		
14. I wear apparel that represents (my favorite team) fan during the off-season.		
15. I spend time creating content related to (my favorite team) during the off season.		
16. I post non-game related content of (my favorite team) during the off-season.		

Comment Box

Please leave any thoughts, opinions, or feedback below (revising/removing/adding items, etc.).

Thank you for your time spent taking this survey.

VITA

HAN SOO KIM

EDUCATION

Ph.D., University of Mississippi – Oxford, MS 2021
Major: Sport and Recreation
Minor: Applied Statistics
Cognate Area: Sport Analytics

M.S., Yonsei University – Seoul, South Korea 2016
Major: Sport and Leisure Studies
Cognate Area: Sport Marketing/Sport Administration

B.S., Yonsei University – Seoul, South Korea 2014
Major: Physical Education
Minor: Business Administration

ACADEMIC APPOINTMENTS

University of Mississippi 2018 - 2021
Statistics Consultant, Research & Analytics Laboratory
Research Assistant, Health & Sport Analytics Laboratory

Yonsei University 2014 - 2016
Research Assistant, Sport Business & Marketing Laboratory

SCHOLARY ACTIVITIES

Refereed Publications

Kim, H. S., Kang, M., & Kim, M. (2021). Rasch calibration and optimal categorization of the sport fandom questionnaire. *International Journal of Sports Marketing and Sponsorship*. Advance online publication

Kim, M., **Kim, H. S.**, Simmond, A., & Warner, S. (2021). Strengthening referees' psychological well-being through engagement and authenticity. *Sport Management Review*. Advance online publication.

Jung, M., **Kim, H. S.**, Loprinzi, P. & Kang, M. (2021). Serial-multiple mediation of enjoyment and intention on the relationship between creativity and physical activity. *AIMS Neuroscience, 8*(1), 161-180.

Kim, H. S., & Kim, M. (2020). Viewing sports online together? Psychological consequences on social live streaming service usage. *Sport Management Review, 23*(5), 869-882.

Kim, M., Oja, B., **Kim, H. S.**, & Jin, J. (2020). Developing student-athlete school satisfaction and psychological well-being: The effects of academic psychological capital and engagement. *Journal of Sport Management, 34*(4), 378-390.

Ferdinand. N., **Kim, H. S.**, Simmond, A., & Kim, M. (2020). Basketball official's training and development: Links to retention. *International Journal of Human Movement Science, 14*(1), 13-23.

Kim, H. S., Cho, K., & Kim, M. (2019). Information sharing behaviors among sport fans using #hashtags. *Communication & Sport.* Advance online publication. Doi:10.1177/2167479519878466

Kim, H. S., Cho, K., & Rhee, S. (2015). The structural relationship among experience in sports brand flagship stores, flow, brand image, and purchase intention. *The Korean Journal of Physical Education, 54*(4), 313-327.

Kim, H. S., Cho, K., & Kwon, I. (2015). The analysis of differences between importance and satisfaction of camping equipment consumption value attributes using the IPA method. *The Korean Journal of Physical Education, 54*(1), 271-283.

Research Presentations

Kim, H. S., Kim, M., & Simmond, A. (2021, June). *A conceptual framework of year-round fan engagement: The role of off-season fan behavior.* Presented at the annual conference of North American Society for Sport Management (NASSM), Virtual.

Kim, H. S., Kim, M., & Oh, T. (2020, September). *Assessing crisis response strategies in sport organizations: Using text mining to understand fan online engagement.* Presented at the annual conference of European Association for Sport Management, Virtual.

Kim, H. S., Ferdinand, N., Kim, M., & Lee, K. (2020, May). *Augmenting sports officials' well-being: From prediction variables of referee retention.* Presented at the annual conference of NASSM, Virtual.

Kim, H. S., Kim, M., & Kim, Y. D. (2019, November). *The application of social live streaming services in sports for fans' social well-being.* Presented at the annual conference of SMA, Chicago, IL.

Kim, Y. D., Nam, C., **Kim, H. S.**, & LaPlaca, A. (2019, November). *Leveraging sport organizations' green initiatives: A belief-attitude-intentions hierarchy approach.* Presented at the annual conference of SMA, Chicago, IL.

Kim, H. S., Kim, M., Kim, Y. D., Kwag, M., & Kim, H. (2019, June). *The big wave of watching sport events: Application of social live streaming services for fans' psychological benefits.* Presented at the annual conference of NASSM, New Orleans, LA.

Kim, M., **Kim, H. S.**, Kim, Y. D., Lee, H., & Kwag, M. (2019, June). *It is time to consider student-athletes' well-being and performance satisfaction: The roles of authentic leadership and psychological capital.* Presented at the annual conference of NASSM, New Orleans, LA.

Kim, H. S., Bae, J. S., Won, D., Chiu, W., & Seo, K. (2017, November). *The impact of para-social connection in the entertainment focused sports television programs.* Presented at the annual conference of SMA, Boston, MA.

Oh, J., **Kim, H. S.**, & Cho, K. (2017, November). *How to utilize AR devices for sports spectators: The mediating roles of immersion and perceived usefulness.* Presented at the annual conference of SMA, Boston, MA.

Kim, H. S., Park, J., Cho, K., & Bae, J. (2017, July). *The role of hashtags in sports fandom.* Presented at the annual conference of the World Association of Sports Management, Kaunas, Lithuania.

Bae, J., Chiu, W., **Kim, H. S.**, & Won, D. (2016, November). *The effect of perceived crisis severity on baseball fans' psycho-physiological responses.* Presented at the annual conference of the Korean Scholars of Marketing Science, Seoul, Korea.

TEACHING EXPERIENCE

University of Mississippi, Dept. of HESRM

Instructor — 2018 - 2021

- [SRA 270] The Business of Sport
- [SRA 311] Marketing and Communication in Sport and Recreation
- [SRA 375] Recreational Sports Programming
- [HP 203] First Aid & CPR
- [EL 124] Racquetball
- [EL 156] Jogging

Guest Lecturer

- [SRA 475] Legal Aspects of Sport and Recreation
- [SRA 311] Marketing and Communication in Sport and Recreation

Teaching Assistant (*Graduate-level course) — 2018 - 2021

- [SRA 475] Legal Aspects of Sport and Recreation
- [SRA 311] Marketing and Communication in Sport and Recreation
- [SRA 672*] Business of Sport and Recreation
- [SRA 671*] Sport and Recreation Administration

Yonsei University, Dept. Sport & Leisure Studies

Teaching Assistant — 2014 - 2016

- [SLS 4211] The Business of Sport
- [SLS 3214] Sport Marketing

CERTIFICATES

First Aid/CPR/AED Instructor 2018; 2020
American Red Cross

eLearning Teaching Certificate 2019
Office of Academic Outreach, University of Mississippi

GRANTS

Lee Jeoung Hak Research Grant ($500) 2020
Korean American Association for Sport management

Graduate College Conference Travel Grant ($1,200) 2018 - 2019
University of Mississippi

National Grant for Outstanding Academic Excellence ($2,000) 2013
The Korea Student Aid Foundation

AWARDS

Graduate Student Research Award 2021
University of Mississippi

EXTRA CURRICULA ACTIVITIES

Volunteer, Samsung Electronics Co. Ltd. 2013
- Participated in community volunteering works
- Organized on and off campaigns for promoting college volunteer activities

Military Service, Republic of Korea Air Force (ROKAF) 2009 - 2011
- Served as an Administrative Clerk
- Awarded "Certificate of Commendation" for noteworthy service in ROKAF by the Corps Commander

PROFESSIONAL SERVICE

Manuscript Reviewer

Journal of Physical Activity & Health
Journal of Psychosocial Research on Cyberspace
Social Behavior and Personality: An International Journal
Frontiers in Sports and Active Living

PROFESSIONAL MEMBERSHIP

European Association for Sport Management
Korean American Association for Sport Management
North American Society for Sport Management
Sport Marketing Association