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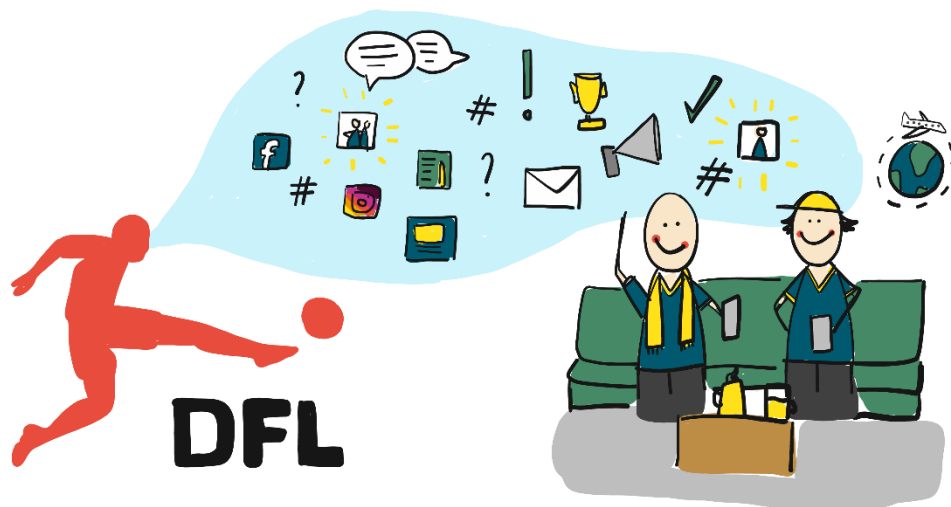**Going Global:**

Enhancing International Social Media Fan Engagement –

Evidence from the German Bundesliga

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Abstract

The unbreakable boundary between the physical and online world in sports is getting blurry. In turn, the glamour of sports moves to a global digital spotlight. Sports organizations try to seize this opportunity to digitally attract international fans by utilizing social media. However, they currently lack an understanding of the sports content drivers to enhance fan engagement and how to interact with international fans due to cross-cultural effects. We build upon consumer engagement theory and link sports organizations' brand attributes with the concept of visual emotional and informational appeals. Our experiment demonstrated: it is crucial for sports organizations to understand how to adjust visual appeals to maximize content effectiveness, as our analyses yielded evidence that emotional appeals have a significant positive effect on fan engagement. Furthermore, the results showed that the relationship between sports content, visual appeals, and fan engagement is significantly moderated by cross-cultural and media type effects.

Keywords: cross-cultural effect, fan engagement, media type, social media engagement, social media usage, sports content, sports digitization, visual appeal

Introduction

Professional sports has become a billion-dollar business that attracts millions of sports consumers, so-called fans, around the globe. For instance, in the 2017/2018 season of the German football Bundesliga around 550,000 fans a week attended the match of their favorite club live in the stadium (Deutscher Fußball-Bund [DFB], 2018). However, in recent years, the seemingly unbreakable boundary between the physical world and the online world in sports has been getting blurry. In turn, the glamour of sports moves more and more towards a global digital spotlight. For instance, as noted by Nasser Al-Khelaifi (President of Paris Saint-Germain Football Club), "The world today is a direct, digital world. It has taken 50 years to make Real Madrid a world club. Now you can do it in five years" (11Freunde, 2020, p.4). Sports organizations, such as associations and clubs, try to seize this opportunity to digitally attract new international fans beyond their traditional local fan base by utilizing social media. Social media removes geographical barriers of traditional media outlets, so they transcend both temporal and geographical constraints to enable sports organizations to directly engage with fans on a worldwide basis outside of a traditional home market. As a result, social media has enabled novel marketing strategies that offer innovative experiences and interactions to build and

deepen unique relationships between sports organizations and international fans (Xiao et al., 2017).

Social media offers sports organizations the freedom to design and communicate a broad spectrum of sports content (e.g., fan stories, player portraits, or sports highlights, and news) in a variety of different media types (e.g., texts, photos, or videos). Previous research from related literature streams has shown that such multimedia content can be instrumental on social media because content is an important driver of consumer engagement (Ordenes et al., 2019). In a sports context, it was demonstrated that high fan engagement on social media impacts key organizational performance outcomes such as ticket and merchandise sales and fan loyalty (Vale & Fernandes, 2018). However, while the freedom to use multimedia content on social media is favorable to enhance fan engagement in general, there is limited understanding of the sports content drivers that can enhance fan engagement. For instance, does a video that shows a goal scored by a world-class striker lead to higher fan engagement than a photo that shows the flag-waving fans of a club on social media? On top of that, although many sports organizations face the challenge of globalizing their businesses and researchers call for such investigations, sports organizations currently lack an understanding of how to interact with new international fans due to cross-cultural effects such as a geographical heterogeneity and cross-cultural behaviors (e.g., attitudes and values) (e.g., Achen et al. (2018), Romney and Johnson (2020), or Vale & Fernandes (2018)). Yet, research on social media content drivers and their impact on a global level is still scarce and needs further exploration – in research in general (Akpinar & Berger, 2017; Rietveld et al., 2020) and in the sports context in particular. Therefore, we tackle the following two research questions (RQs) in this paper:

RQ1: *What are the sports content drivers to enhance fan engagement on social media?*

RQ2: *How do cross-cultural effects moderate the relationship between sports content drivers and fan engagement?*

We conducted a joint research project with the DFL Digital Sports GmbH (DFL DS). DFL DS is responsible for the entire social media content of the German Bundesliga, including the Bundesliga and Bundesliga 2 leagues. We build upon consumer engagement theory (CET) as proposed by Pansari and Kumar (2017) and link sports organizations' brand attributes with the concept of visual emotional and informational appeals and tested our research model in an experiment using a between-subjects design with four treatments (N = 167). For researchers, we propose a unique research model to

academia that should be extended and adjusted to different contexts. For social media practitioners, our study provides guidelines on how to create influential social media content to maximize content effectiveness. The remainder of this paper is structured as follows: Section 2 introduces the theoretical background and related work. Our research model and hypotheses as well as the method are described in Section 3. Section 4 presents our findings as well as the discussion. We then propose the implications, avenues for future research, and the limitations in Section 5. Finally, we conclude our paper in Section 6.

Theoretical Background & Related Work
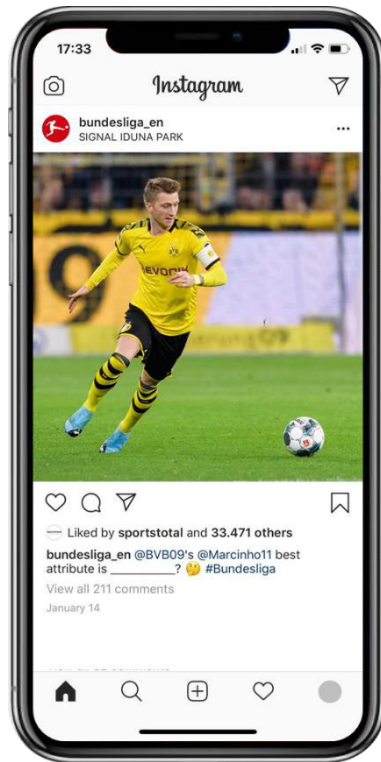
Fan Engagement on Social Media

The advent of social media has had a profound impact on how people consume sports, as it offers an interactive channel between fans and the sports itself. We define social media as being made up of various user-driven platforms, so-called social networking sites (SNSs) (e.g., Facebook, Instagram, or TikTok), that facilitate a diffusion of compelling content, dialog, creation, and communication to a broader audience (Kapoor et al., 2018). Social media offers sports organizations the possibility to design and communicate a broad spectrum of sports content in a variety of different media types. Previous research has shown that such multimedia content can be instrumental on social media because content is an important driver of consumer engagement (Ordenes et al., 2019). Engagement on social media has been studied extensively by practitioners as well as in various academic disciplines including Information Systems (IS) research in recent years (e.g., Liu et al. (2020)). However, there is no common consensus on how engagement should be defined in academia yet. As a result, there are variations in the nomenclature as well as in its conceptualization of engagement. In this paper, we draw on CET, which was proposed by Pansari and Kumar (2017) to provide a holistic definition of consumer engagement. The theory suggests that consumers' brand- or firm-related experiences influence their emotional or affective states, which then influence the nature of their direct and indirect engagement with firms (Pansari & Kumar, 2017). For example, the viewing experience of advertising can lead to consumers' positive attitude towards a product, which, in turn, leads to direct engagement that can occur in the form of purchases or to indirect engagement in the form of social media conversations consumers have about the brand.

Consumer engagement has proven to be beneficial for organizations in different practical and theoretical endeavors. For instance, a positive impact on firm performance has been reported in terms of financial returns and shareholder value (e.g., Rietveld et al. (2020)). In a sports context, it was demonstrated that high fan engagement on social media impacts organizational performance outcomes such as brand awareness, ticket and merchandise sales, and fan loyalty (Vale & Fernandes, 2018). Accordingly, it is important for sports organizations to understand what kind of social media sports content enhances fan engagement. Researchers have investigated both (1) "what" content sports organizations post on social media (e.g., Aichner (2019)) and (2) "why" – the motives – fans consume sports content on social media (e.g., Vale and Fernandes (2018)). For a detailed literature review on social media in the field of sports, see, Filo et al. (2015). However, although many sports organizations currently face the challenge of globalizing their businesses and researchers call for such investigations, little research has elaborated on the social media sports content drivers that lead to high fan engagement and in particular in an international sports context in which fans differ due to cross-cultural effects such as a geographical heterogeneity and cross-cultural behaviors (e.g., attitudes and values) (e.g., Achen et al. (2018), Romney and Johnson (2020), or Vale and Fernandes (2018)).

To close this gap, we build upon Parganas et al. (2015), who developed a sports organization-branding model that is based on Keller's (1993) well-known hierarchy of brand associations (i.e., attributes, attitudes, and benefits). Parganas et al. (2015) argued that sports organizations contain specific brand attributes that can be controlled and used in order to influence fan engagement. Their model is constituted of two categories that are adjusted to the context of this study as follows: (1) product-related attributes – that is, those attributes that originate from the actual game on-site the field of play, for example, player skills or match highlights (see, Figure 1); (2) non-product-related attributes that originate from off-site the actual field of play and are relevant for the consumption of sports, such as figures and statistics or fan cultures (see, Figure 2). In this paper, we link this distinction between product-related and non-product-related attributes to social media sports content categories to identify social media sports content drivers that can enhance fan engagement.

Figure 1

Player Post From the Product-Related Sports Content Category

Figure 2

Fan Culture Post From the Non-Product-Related Sports Content Category
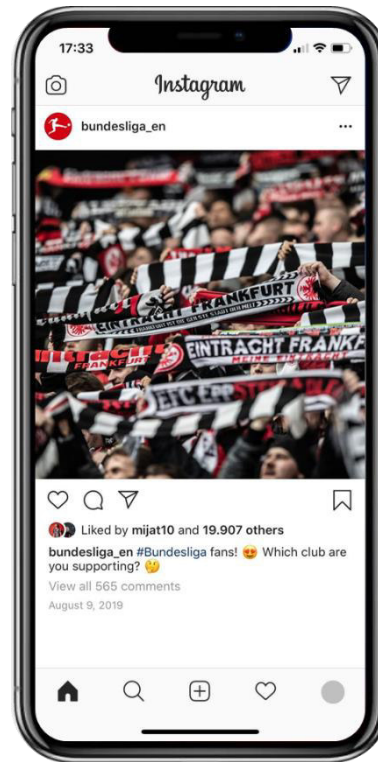
Visual Appeals as Drivers for Social Media Fan Engagement

The past few years have witnessed a shift in social media from text-centric to visually oriented content (i.e., photos and videos). According to the extensive visual advertising literature, visual components can affect cognitive (e.g., attention, attitude, or preference) and behavioral (e.g., clicks, purchase intention, or sales) processes (Li & Xie, 2020). To examine and to understand what kind of visual content enhances consumer engagement on social media, scholarly research from the marketing discipline has adopted and utilized emotional and informational visual appeals included in social media content (e.g., Akpinar and Berger (2017), Li and Xie (2020), Rietveld et al. (2020), or Yoo and MacInnis (2005)). Visual appeals operate under the assumption that message content in terms of its emotional and informational appeals emerges as a key driver of engagement behavior. We adopt the emotional versus informational appeals distinction and define emotional appeals as visual post content designed to invoke consumers' emotions. Emotional appeals are designed to make the consumer feel good about the brand or product and can lead to positive reactions (Goldberg & Gorn, 1987). Therefore, emotions can motivate and persuade consumers and often guide attitude formation and consumer behavior (Bagozzi et al., 1999). Informational appeals, on the other hand, are

defined as visual post content designed to appeal to a consumers' rationality by providing information on the benefits and attributes of brands and products (Yoo & MacInnis, 2005). Informational appeals are designed to invoke cognitive processing by using objective information describing a brand's benefits (MacInnis et al., 2002). Informational appeals aim to change a consumer's brand beliefs based on arguments conveyed in the message content (MacInnis et al., 2002; Rietveld et al., 2020). The distinction between emotional and informational appeals has been proven to offer a meaningful lens for studying the effect of message content on engagement behavior in different offline and online applications. For instance, Akpinar and Berger (2017) found that online ads with strong emotional appeals are more likely to be shared, while online ads with informational appeals drive brand evaluations and purchase. Similarly, Lee et al. (2018) found that adjusting emotional and informational appeals in content on Facebook leads to different brand-related outcomes. Two example photos with different emotional and informational visual appeals in a sports context are depicted in Figure 3 and Figure 4.

Given that visual appeals can be controlled and adjusted by sports organizations on social media, it is worth studying them to understand how sports content influences fan engagement. In this vein, Romney and Johnson (2020) performed a content analysis of photos of sports networks (e.g., ESPN and FOX Sports) on Instagram. The authors found that photos that contained emotional messages resulted in great interest and engagement by fans. However, our understanding of emotional and informational visual appeals in social media sports content is still limited. Therefore, we link social media sports content as described in the aforementioned section with the concept of emotional and informational visual appeals to identify sports content drivers that enhance fan engagement.

Figure 3

Sports Content with Emotional Appeals

Figure 4

Sports Content with Informational Appeals

Cross-Cultural and Media Type Effects in Social Media Fan Engagement

Professional sports has become a global phenomenon. Hence, acknowledging the potential of cross-cultural effects is crucial for understanding the sports content drivers of fan engagement. The concept behind culture is not easy to define, although research on culture is abundant in academia today. The most widely used definition of culture in a national context stems from Geert Hofstede. Hofstede defines national culture as "its essence is collective mental programming: it is that part of our conditioning that we share with other members of our nation, region, or group but not with members of other nations, regions, or groups" (Hofstede, 1983, p. 76). Today, the concept of culture has been elaborated on in relation to dozens of nations and in dozens of different offline and online contexts. As a result, research commonly supports the view that online cultures mirror the offline cultures of which they are a product (Jackson & Wang, 2013). Fans can also be segmented culturally, socially, and demographically in terms of their engagement behaviors. This view is shared by Bouzdine-Chameeva et al. (2015), who stated that a population of fans is heterogeneous, with fans of different backgrounds or preferences differing fundamentally in the way they consume sports. For example, fans are different and distinct in their practices and cultures. Fans may exhibit distinct fandom levels, ranging from simply watching games to assuming the successes and losses of their club as their own (often referred to as self-identity). Thus, the degree of passion and emotional significance distinguishes fans (Fillis & Mackay, 2014). In this vein, Hu and Cole (2016) expressed that fans vary in the intensity with which they

support their favorite team, with deeply loyal and ardent fans usually seeking very particular platforms to converse with. With these results in mind, it can be said that fans exhibit different levels of social and cultural attachment to sports. It can be assumed that these differences are even multiplied in an international fan context as the internet growth continues to shape fandom.

Similar to the cultural effects on social media fan engagement, previous research has shown that the media type in which multimedia content is presented on social media has a significant effect on engagement outcomes such as clicks, purchase intention, or sales. For example, Li and Xie (2020) found a significant and robust positive mere presence effect of photo content on user engagement on Twitter. The authors also found that high-quality and professionally shot pictures consistently lead to higher engagement. In a social media sports context, these findings raise questions, such as 'Does a video that shows a world-class goal scored by a striker (i.e., sports content from the product-related sports content category) lead to a higher fan engagement than a photo that shows the flag-waving fans of a club (i.e., non-product-related sports content category)?'. To answer such questions, we included both cultural and media type effects in our research model, which is described in detail in the upcoming section.

In sum, CET, as described by Pansari and Kumar (2017), serves as an overarching theoretical perspective to ground our conceptual framework in. We furthermore build on related research into sports organizations' brand attributes (Parganas et al., 2015) and the concept of emotional and informational visual appeals (Yoo & MacInnis, 2005). From a CET perspective, we argue that (1) sports organizations publish sports content on social media; (2) fans' experiences with these content will be associated with fans' affective states; (3) fans' affective states will, in turn, influence the nature of their digital engagement with the content; (4) by managing visual emotional and informational appeals in their social media sports content, sports organizations can influence fans' digital engagement; (5) this relationship between visual appeals and fan engagement is moderated by cross-cultural and media type effects. In other words, through their social media activities, sports organizations can send specific stimuli that lead to higher fan engagement taking into account that fans' engagement behavior on social media is infused with their cultural values and influenced by media type effects.

Research Model and Hypotheses

Hypotheses Development

For the development of our research model (see, Figure 5), the following hypotheses are based on the concepts described in Section 2 as well as on related literature streams and are explained as follows.

According to Parganas et al. (2015), sports organizations contain specific brand attributes that can be controlled and used in order to influence fan engagement. In this paper, we follow the authors and classify social media sports content according to these attributes. In detail, we expect that product-related and non-product-related sports content triggers different levels of fans' emotional and informational appeals. We assume that sports content that originates from the actual game on-site the field of play (i.e., product-related sports content) and shows, for example, skills or match highlights has a strong positive effect on the emotional appeals of fans, as this kind of sports content invokes fans' emotions. Hence, we state the following hypothesis:

> **H1:** *Product-related sports content has a stronger positive effect on emotional appeals than non-product-related sports content.*

Similar to the abovementioned discussion about the emotional appeals, we assume that non-product-related sports content, that is, content that originates off-site the field of play and includes sports content related to figures and statistics or information about fan cultures, has a strong positive effect on the informational appeals of fans. Reasons for our hypothesis are that such a kind of sports content appeals to fans' rationality and thus invokes cognitive processing. Consequently, we pose the following hypothesis for the non-product-related sports content:

> **H2:** *Non-product-related sports content has a stronger positive effect on informational appeals than product-related sports content.*

In our study, emotional appeals are defined as visual post content designed to invoke fans' emotions. Emotional appeals have been proven to affect consumer behavior and enhance engagement in different offline and online contexts. For instance, Goldberg and Gorn (1987) demonstrated that emotional appeals can lead to engagement in the form of positive reactions by showing emotional TV commercials. Similarly, in Yoo and MacInnis (2005) it was demonstrated that ads with an emotional ad format strengthen positive feelings and thereby enhance the brand attitude format process positively. In an online social media context, Wang et al. (2019) found that emotional social media

content is a strong motivator for followers to repost content. Similarly, Rietveld et al. (2020) demonstrated that visual emotional and informational appeals encoded in brand-generated content influence consumer engagement in terms of likes and comments on Instagram. Following these previous findings, visual sports content that is composed of affective emotional appeals evokes arousal and thus is likely to affect fans' digital engagement. That should be especially true in a sports context in which fans are mainly driven by emotions such as passion and social values rather than by rational evaluations (Gruettner, 2019). Therefore, one should expect that sports content with high emotional appeals is positively affecting fan engagement:

> **H3:** *Visual sports content with high emotional appeals has a positive effect on fan engagement.*

Informational appeals are defined as visual post content designed to appeal to a consumers' rationality. On the one hand, evidence for a positive effect of informational appeals on engagement behavior has been shown with large, diverse samples (e.g., Akpinar and Berger (2017), Li and Xie (2020), or Yoo and MacInnis (2005)). These studies commonly report that content with high informational appeals can provide relevant information about a product, its use, and its benefits, thereby helping consumers to better evaluate it and thus leading to direct engagements in the form of, for instance, consumer purchases. On the other hand, previous findings contrast that a high informational effect can also have a negative effect on consumer engagement (e.g., Rietveld et al. (2020)). In this vein, Muntinga et al. (2011) argued that informational appeals may signal a persuasion attempt, which is incongruent with motivations to engage with brands on social media. In the context of this study, we are not dealing with consumer purchase decisions. In contrast, the sports content posted by sports organizations on social media aims to raise emotions, general interest, or to educate and inform fans (e.g., about performance data, standings, or transfers and injuries). As such data often changes on a daily/weekly basis, this information becomes highly relevant for fans. In this vein, various studies have shown that information gathering is one key motivation for fans to follow sports accounts on social media (e.g., Vale and Fernandes (2018)). Following the argumentation above, we assume that sports content with high informational appeals positively affects fan engagement:

> **H4:** *Visual sports content with high informational appeals has a positive effect on fan engagement.*

Fans can be segmented culturally, socially, and demographically in terms of their engagement behaviors (see, Section 2.3). Therefore, we hypothesize that the relationship

between visual emotional/informational appeals and fan engagement is moderated by cross-cultural effects. Our reasoning is as follows: Consumer segments and cultural effects in online contexts have been investigated. Researchers commonly report that online cultures mirror offline cultures (Jackson & Wang, 2013). In a social media sports context, Billings et al. (2019) found that fans from China and the United States use social media for starkly contrasting motives. While fans from China used social media for camaraderie, entertainment, and maintaining relationships, fans from the United States used social media to express their fandom and to gain information. These results are in line with other studies such as Jackson and Wang (2013). In the context of this study, we assume similar results, that is, that cultural effects on the motives (e.g., entertainment, information, integration, and social interaction, or personal identity motives (see, Vale and Fernandes (2018)) to consume sports and the accompanied different levels of fandom will moderate how strongly fans perceive emotional and informational appeals in social media sports content and, in turn, have an effect on fan engagement. Accordingly, we pose the following hypotheses:

> **H5a:** *The relationship between sports content, visual emotional appeals, and fan engagement is moderated by cross-cultural effects.*

> **H5b:** *The relationship between sports content, visual informational appeals, and fan engagement is moderated by cross-cultural effects.*

Previous research has shown that multimedia content unleashes its emotional and informational appeals differently depending on the type of media (i.e., texts, photos, or videos) in which the content is presented. Therefore, we assume that media types moderate the relationship between sports content, emotional and information appeals, and fan engagement. Evidence for this assumption can be found, for instance, in Li and Xie (2020) who demonstrated that different media types have a significant effect on cognitive (e.g., attention, attitude, or preference) and behavioral engagement outcomes (e.g., clicks, purchase intention, or sales). Consequently, we include the media type in which the sports content is presented in our research model that moderates the relationship between sports content, emotional and informational appeals, and fan engagement:

> **H6a:** *The relationship between sports content, visual emotional appeals, and fan engagement is moderated by media type.*

> **H6b:** *The relationship between sports content, visual informational appeals, and fan engagement is moderated by media type.*

Figure 5

Research Model
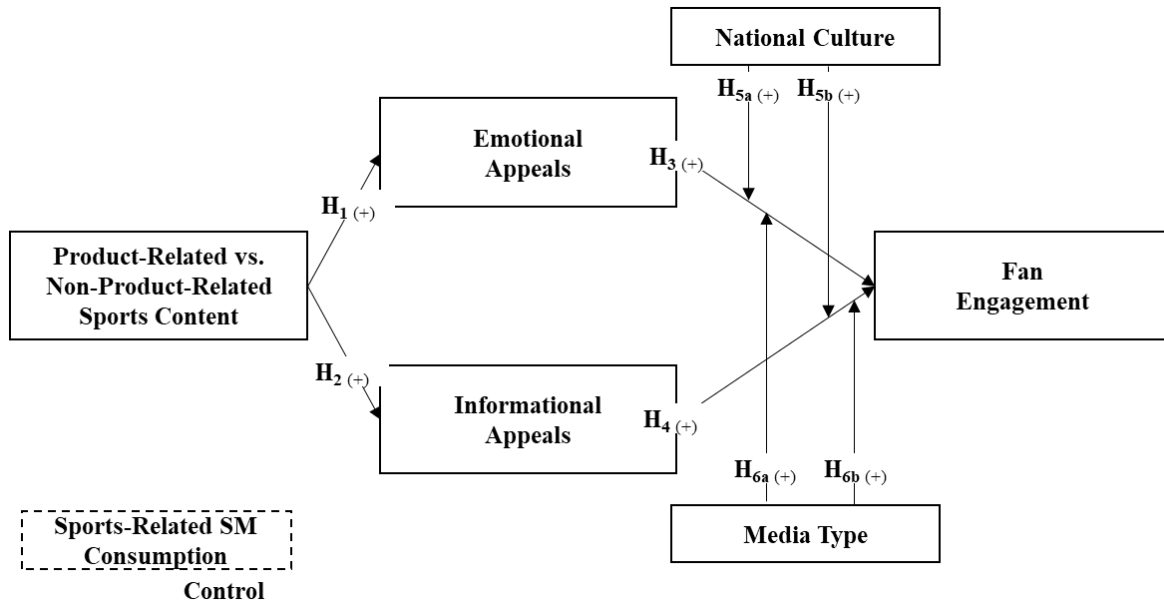
Method

Experimental Design and Manipulations

This study is conducted in a joint research project with DFL DS. DFL DS is a subsidiary of the German Football League (DFL), the German national football federation. DFL DS is responsible for and operates the entire social media content of the German Bundesliga, including the Bundesliga and Bundesliga 2 leagues. Therefore, we chose the German Bundesliga as the research context of our study. The defined research model and hypotheses are tested in an experiment using a between-subjects design with four treatments. Subjects to collect data for validating or rejecting the hypotheses (H1 to H6) were collected through the official German Bundesliga channels (i.e., "www.Bundesliga.com", "Bundesliga Official" on Facebook, and "bundesliga_en" on Instagram). In 2019, the official Bundesliga website ("www.Bundesliga.com") had an active monthly user base of 1.74 million on average. "Bundesliga Official" recorded 7.7 million followers and "bundesliga_en" had 5.3 million followers at the time of our analysis (the numbers are as of 26 April 2020). To target subjects for our experiment, a banner/post targeting American and Indian citizens was shared on the abovementioned channels between 24 April 2020 and 29 April 2020 in which subjects were asked to take part in a survey to help the German Bundesliga improve their social media content. We chose India and the United States for two reasons. First, English is the official language

in both countries. Therefore, it is guaranteed that we can use the same sports content for all subjects of the experiment. Second, both countries are international emerging markets with respect to their interest in football and are therefore interesting for sports organizations such as the DFL DS. We refrained from recruiting subjects, for example, through a lottery, because we wanted to have intrinsically motivated participants who could deliver reliable results. Subjects were then redirected to an external website to take part in the experiment. In the experiment, subjects were asked to evaluate social media sports content that had been previously posted on the official German Bundesliga social media channels. We only presented the concrete photos and videos of the previously published content and excluded captions and comments of other users. This guaranteed that we could measure the specific effects represented in our research model. The experiment consisted of six stages, which are described as follows and depicted in Figure 6.

Figure 6

Experimental Design
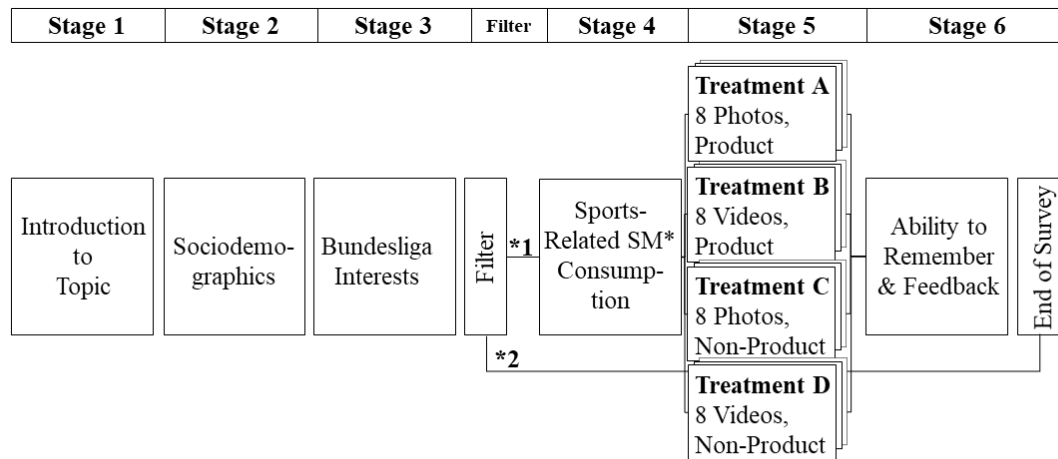
*1: I consumed sports content on social media in the last month.
*2: I did not consume sports content on social media in the last month.   *SM = Social media

In the first stage, subjects are introduced to the topic of the experiment as follows: "You are confronted with a variety of social media sports content (e.g., fan stories, sports highlights, sports news, or sports statistics) on social media every day. In our project, we want to investigate what kind of sports content fans are most interested in consuming via social media". The second stage of the experiment asked for the sociodemographic characteristics of the subjects. In the third stage, subjects answered initial questions to measure their interest in the German Bundesliga. Then, we implemented a filter that asked whether subjects had consumed sports content on social media in the last month. This filter guaranteed that only subjects were included that consume sports content on

social media. In the fourth stage, subjects were asked to answer questions to measure their sports-related social media consumption. In the fifth stage, subjects were randomly assigned to one out of four treatments. In all of the four treatments, subjects were, firstly, introduced to the concept of emotional and informational visual appeals as described in Akpinar and Berger (2017). In a second step, subjects were asked to imagine the following situation: "You are browsing through your social media networks. While doing so, you are seeing different content from your friends and family but also from the accounts you are following and commercial ads. In the following, you will be shown eight photos (Treatment A and C) or eight videos (Treatment B and D)[1] that show up on your screen. Please carefully observe all the eight photos/videos and then answer the questions". In Treatment A and B, subjects were exposed to either eight photos from the product-related sports content category (Treatment A; see, Figure 7) or to eight videos from the product-related sports content category (Treatment B; see, Figure 8). Similarly, in Treatment C and D, subjects were exposed to either eight photos from the non-product-related sports content category (Treatment C; see, Figure 9) or to eight videos from the non-product-related sports content category (Treatment D; see, Figure 10). To test H1 and H2, subjects were then asked to answer questions regarding the emotional and informational visual appeals contained in the photo/video. A similar approach is used and suggested in scholarly science (see, Akpinar and Berger (2017), Rietveld et al. (2020), or Yoo and MacInnis (2005)). Afterwards, to test H3 and H4, subjects had to indicate whether they would "like" the presented photo/video on social media. The last stage of the experiment asked subjects which of the photos/videos they remembered and to give general feedback on the content shared by the German Bundesliga.

In order to assign photos and videos to the product-related or to the non-product-related sports content category, two senior researchers and a practitioner from DFL DS's social media content team coded photos and videos independently and afterwards discussed their affiliation to the attributes developed by Parganas et al. (2015). Since we targeted subjects whose nationality is either American or Indian, the language of the experiment is English. Furthermore, we paid special attention to ensure that all pictures and videos shown in the experiment were written in English or at least had English subtitles.

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[1] The concrete photos and videos used in our experiment can be found here: Gruettner and Haferbeck (2020).

Figure 7

Photo Content in Treatment A

Figure 8

Video Content in Treatment B
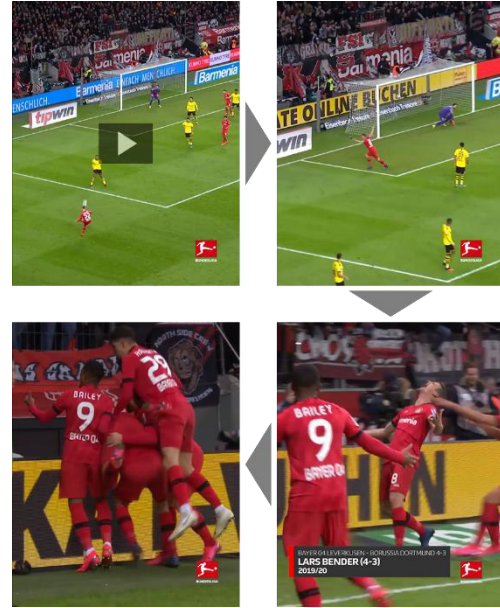
Figure 9

Photo Content in Treatment C

Figure 10

Video Content in Treatment D
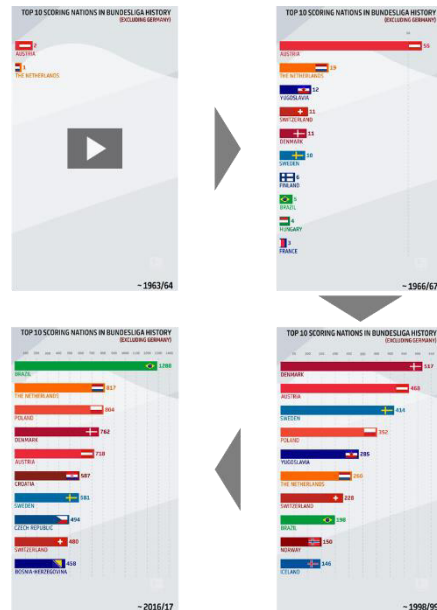
Measurement Model

The experiment items and validated scales used to measure the research variables are based on constructs from scholarly literature (see, Table 1). The measurement items have been adjusted to the experiment context and are described as follows: Items for the informational and emotional appeals construct were adopted from Yoo and MacInnis (2005) and were measured on a 7-point Likert scale with anchors of "Strongly Disagree

(1)" and "Strongly Agree (7)". Subjects were asked to indicate (1) to what extent the individual photo/video appeals to their emotions and (2) whether the photo/video provides a lot of information. The measurement for social media fan engagement is adopted from Schivinski et al. (2016). The authors distinguish between three dimensions of consumer engagement with brands on social media: Consumption, contribution, and creation. We only included items from the contribution dimension to the experiment, as the other dimensions of social media engagement did not fit the context of our study. We asked whether subjects would "like" the presented photo/video. Items for the social media fan engagement construct were measured on a 7-point Likert scale anchored by "not very often (1)" and "very often (7)". The subjects could also select the option "not at all" (coded as 0). We used the nationality of the subjects as a proxy to operationalize the moderating national culture construct as described by Hofstede (1983). Therefore, a dummy variable was created. A similar approach was used in scholarly research such as Hudson et al. (2016). Likewise, for the social media sports content categories (see, Parganas et al. (2015)) as well as for the media type moderator we created dummy variables. In addition to the research variables, we added items for our control variable to our experiment, that is, sports-related social media consumption, as described by Schivinski et al. (2016). All scales and items used in our experiment were carefully worded to fit the specific situation of our experimental sports context rather than being unspecific to fit into any social media context. This ensures that the items correspond to the concept of social media engagement in a sports context and thus guarantees construct validity.

Table 1

Research Variables, Definitions, and Sources Used in our Research Model

Construct	Definition	Source
Research Variables		
Product-related Sports Content	Social media sports content that originates from the actual game on-site the field of play. For example, player skills or match highlights.	Parganas et al. (2015)
Non-Product-related Sports Content	Social media sports content that originates from off-site the actual field of play. For example, figures and statistics or information about fan cultures.	Parganas et al. (2015)
Emotional Appeals	Emotional appeals are defined as visual post content designed to invoke fans' emotions.	Yoo and MacInnis (2005)
Informational Appeals	Informational appeals are defined as visual post content designed to appeal to a fans' rationality.	Yoo and MacInnis (2005)
Fan Engagement	Subject's attitude towards whether it would "like" the presented photo/video on social media.	Schivinski et al. (2016)
National Culture	Dummy variable that indicates the subject's nationality. Indian citizens coded as (1) and citizens from the United States as (0).	Hofstede (1983)
Media Type	Dummy variable that indicates the media type in which the sports content is presented. Photo coded as (1) and video coded as (0).	-
Control Variables		
Sports-related Social Media Consumption	Refers to the subject's general sports content consumption on social media. For example, how often a subject consumes sports content on social media.	Schivinski et al. (2016)

Data Analysis

A total of 2,814 subjects clicked on the banner/post which was sent out on the German Bundesliga channels. 342 subjects (12.15% of the subjects who saw the starting page of the experiment) participated in the experiment and completed it. The usability of received responses for further analysis is judged on several include/exclude criteria: First, 89 answers were excluded because they did not match the nationality requirements (i.e., American or Indian). Second, 32 subjects were removed due to the filter that was embedded in the experiment. Hence, only subjects who stated that they have consumed sports content on social media in the last month were considered. Third, to prevent distortion of experimental results, subjects who selected the same response to different statements/items for all eight photos or videos in a row (so-called straight-lining; e.g., a subject always responds with a seven, irrespective of the questions) were removed. As a result, 14 subjects were excluded due to suspicious data patterns that indicate a monotonous click-through without the variability of responses. Fourth, a focus was laid on the subjects' answers on emotional and informational appeals. If the emotional and informational appeals were rated six or more times with the same value for the eight presented photos or videos, the subjects were removed. This resulted in an exclusion of further 40 responses. A total of 167 (American: 76; Indian: 91) responses remained in our data sample that met the quality requirements and can thus be used for further

analysis (36 subjects of Treatment A; 29 subjects of Treatment B; 69 subjects of Treatment C; 33 subjects of Treatment D). To investigate our proposed hypotheses H1 to H6, we applied a multiple ordinary least squares (OLS) regression. For the emotional and informational visual appeals constructs as well as for the social media fan engagement construct, we calculated the mean of the eight presented photos/videos presented for each subject. For the moderation of the effect, we used the programming language Python 3.4 and model 17 in PROCESS which is proposed by Hayes (2012).

Results and Discussion

Descriptive Statistical Results

In total, 167 subjects are included in our data sample for further analyses after applying the include/exclude criteria as described in Section 3.2. An overview of the descriptive statistics and the number of subjects of each treatment can be found in Table 2. Subjects who are included in the final sample needed 16.27 minutes on average to complete the experiment. The majority of the subjects are male (female = 5.95%; male = 92.86%; one subject preferred not to answer this question). 46.43% of the subjects are between 18 and 24 years old. Subjects in Treatment A and B who are exposed to product-related sports content responded whether the presented content appeals to their emotion at a mean of 4.67. In contrast, the answers of subjects in Treatment C and D (i.e., non-product-related sports content) have a mean of 4.18. Subjects of Treatment A and B answered with a mean of 3.56 that the displayed content provides a lot of information (Treatment C and D 3.86). The answers to the question whether the subjects would like a photo/video scored a mean of 4.73 in the product-related sports content category (Treatment A and B) and a mean value of 4.56 in the non-product-related sports content category (Treatment C and D).

Table 2

Descriptive Statistics of the Data Sample

| Variables	Product-Related				Non-Product-Related			
	Treatment A Photo		Treatment B Video		Treatment C Photo		Treatment D Video	
Demographics N = 167	n = 36		n = 29		n = 69		n = 33	
Nationality India (n = 91)	19 (11.38%)		14 (8.38%)		39 (23.35%)		19 (11.38%)	
USA (n = 76)	17 (10.18%)		15 (8.98%)		30 (17.96%)		14 (8.38%)	
Research Variables	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**
Emotional Appeals Ø	4.53	1.11	4.84	1.09	4.06	1.01	4.44	0.94
Informational Appeals Ø	3.43	1.27	3.72	1.17	3.66	0.82	4.28	0.98
Fan Engagement Ø	4.56	1.29	4.95	1.27	4.42	1.41	4.84	1.34
							SD = Standard deviation	

Evaluating the Effect of Social Media Sports Content on Visual Appeals (H1 – H2)

The statistically significant results of the performed analyses to test our hypotheses are depicted in Figure 12. In H1, we hypothesized that product-related sports content has a stronger positive effect on emotional appeals than non-product-related sports content. Our results confirm this hypothesis (β = .50, t(167) = 3.01, p = .003). We assume that skills and match highlights that originate from the actual field of play are of primary interest to every fan. Therefore, these contents are decisive for whether emotions are triggered in the fans or not. In contrast, content such as figures and statistics or fan cultures is more likely to be consumed as additional information to provide background information and satisfy interests needs. Therefore, such content appeals stronger to fans' rationality than to fans' emotions. This stands in line with previous studies (e.g., Vale and Fernandes (2018)), which demonstrated that fans primarily consume sports content on social media due to entertainment motives and that fans are mainly driven by emotions such as passion and social values rather than by rational evaluations (Gruettner, 2019). Along with this finding, as depicted in Figure 11 (left), a conducted t test between subjects who were exposed to photos from the product-related sports content category and subjects who were exposed to photos of the non-product-related sports content category revealed that product-related content achieved significantly higher emotional appeals (M = 4.53 vs. 4.06; t(169) = 2.14, p = 0.04). The results for H2 did not achieve significant results. Thus, we have to reject H2. However, the analysis revealed a significant positive effect of our control variable, that is, sports-related social media consumption, on informational appeals (β = .19, t(167) = 2.63, p = .009). We interpret this finding as follows: Fans who consume a lot of sports content on social media are interested in sports content that goes beyond product-related content that originates from the actual field of play. They like to consume content such as statistics

and figures. Therefore, sports organizations should consider delivering different content to subjects with a high sports-related social media consumption.

Figure 11

Subjects' Perceived Emotional and Informational Appeals to Product and Non-Product-Related Sports Content in Both Media Types
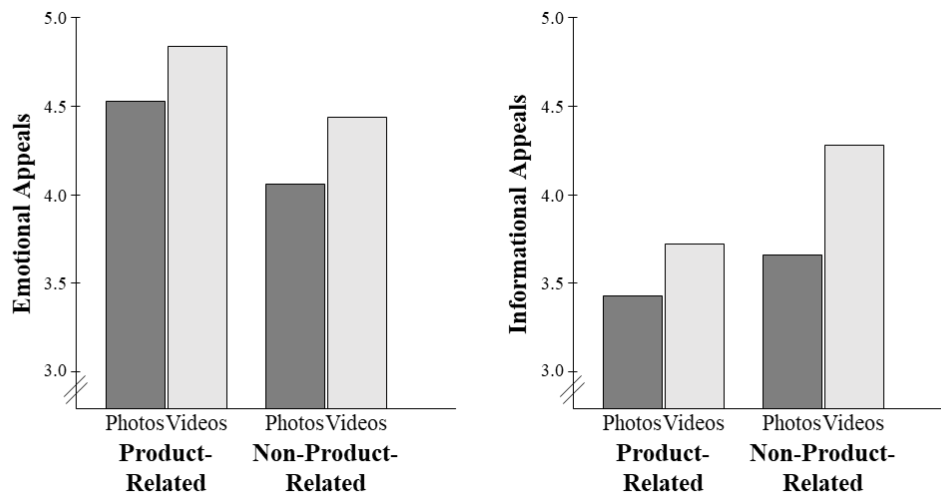
Evaluating the Effect of Emotional and Informational Appeals on Fan Engagement (H3 – H4)

In H3, we hypothesized that visual sports content with high emotional appeals has a positive effect on fan engagement. The OLS regression confirmed that emotional appeals have a significant effect on fan engagement ($\beta = .54$, $t(167) = 2.78$, $p = .006$). In H4, we hypothesized that visual sports content with high informational appeals has a positive effect on fan engagement. The results did not confirm this hypothesis although both emotional as well as informational appeals have been proven to have an effect on engagement behavior in different consumer offline and online applications. Therefore, we have to reject H4. Extrapolating from these findings, we believe that our sports context differs from these previously conducted studies for two reasons: (1) sports organizations usually do not post content that should affect consumer purchase decisions. Instead, the content posted by sports organizations on social media aims to raise emotions, general interest, or to educate and inform fans. Thus, sports organizations face the challenge of having to understand fans' reactions on social media posts with no specific call to action. In this context, Schwarz (2000) argued that different social media strategies should be considered when posts do not include specific calls to actions. (2) On top of that, we are dealing with an international sports context, as our

data sample only consists of subjects who are American and Indian only. As stated in Section 3.2, we consider both countries as international emerging markets with respect to their interest in football. We believe that fans who are new to sports content on social media will be guided more by emotional appeals than by informational appeals, as they first need to get used to the content. In a nutshell, we can confirm that sports content that triggers high emotional appeals is of relevance for sports organizations, as this content can lead to social media fan engagement. Accordingly, sports organizations should understand how to include more/different or less emotional and informational cues in the visual content of social media posts.

Evaluating the Moderating Effects of National Culture and Media Type on the Relationship between Sports Content, Visual Appeals, and Fan Engagement (H5 – H6)

To test our assumptions of the moderating cross-cultural and media type effects on the relationship between sports content, visual appeals, and fan engagement (H5 – H6; see, Table 3), we have only included subjects in the study that are either American or Indian. We found a statistically significant difference in the indirect conditional effect of sports content categories on fan engagement. In detail, we found evidence that the mediational effect between emotional appeals and fan engagement is significantly moderated by the national culture and by the media type (see, Figure 12). The effect is in favor of the product-related sports content category. The indirect conditional effect between the sports content categories and fan engagement is lowest when the moderators USA and video are selected (b=.275, SE=.163, LLCI=.042, ULCI=.715). The indirect conditional effect between the sports content categories and fan engagement is highest when the moderators India and photo are selected (b=.388, SE=.175, LLCI=.13, ULCI=.824). The difference between these two effects is mainly caused by national culture. In other words, product-related sports content has an indirect conditional effect on fan engagement when moderated by India rather than America. We interpret these findings as follows: Traditionally, India is a larger football nation (or at least closer to football) than the United States in which, for example, American football and basketball are more popular among fans. For the mediator informational appeals, we could not find a statistically significant effect in terms of moderation through culture or media type. In sum, our results indicated that cultural values also exist among fans. Therefore, they are in line with previously conducted research such as Jackson and Wang (2013). Accordingly, social media sports practitioners need to consider cross-cultural and media type effects in their social media strategies.

Table 3

Conditional Indirect and Moderating Effect(s) for H5 and H6

Visual Appeals	National Culture	Media Type	Effect	SE	BootLLCI	BootULCI
Emotional	USA	Video	0.2748	0.1629	0.0418	0.7145
Emotional	USA	Photo	0.2884	0.1621	0.0364	0.6646
Emotional	India	Video	0.3748	0.1666	0.1086	0.7635
Emotional	India	Photo	0.3883	0.1745	0.1303	0.8239
Informational	USA	Video	-0.0994	0.0934	-0.3907	0.0083
Informational	USA	Photo	-0.0986	0.0914	-0.4143	0.0001
Informational	India	Video	0.0387	0.0643	-0.0522	0.2188
Informational	India	Photo	0.0395	0.0652	-0.0426	0.2325
SE = Standard error; LLCI = Lower level of confidence interval; ULCI = Upper level of confidence interval						

Figure 12

Research Model Including Statistically Significant Results
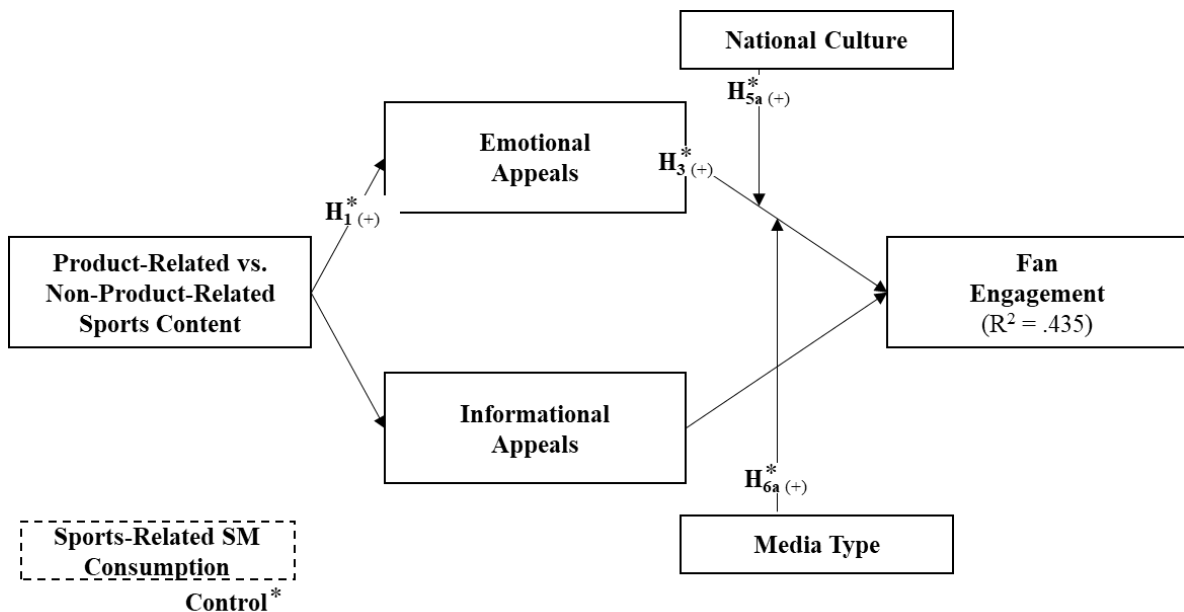
Implications, Future Research, and Limitations

To identify (1) the sports content drivers to enhance fan engagement on social media and (2) to investigate how cross-cultural effects moderate the relationship between sports content and fan engagement, we conducted an experiment using a between-subjects design with four treatments in a joint research project with DFL DS. The overarching theoretical perspective on which we ground our research model to test our hypotheses (H1 – H6) builds upon CET as described by Pansari and Kumar (2017). We furthermore build on related research streams on sports organizations' brand attributes (Parganas et al., 2015) and on the concept of visual emotional and informational appeals (Yoo & MacInnis, 2005). In total, 167 subjects were analyzed in our research model that

were collected through the official German Bundesliga channels (i.e., "www.Bundesliga.com", "Bundesliga Official" on Facebook, and "bundesliga_en" on Instagram). The results showed that product-related sports content had a significant effect on emotional visual appeals (H1). We could not find evidence for our hypothesis that non-product-related sports content has a positive effect on informational appeals. Thus, we have to reject hypothesis H2. Emotional appeals had a significant effect on social media fan engagement (H3), while informational appeals did not show a significant effect (H4). To test our assumption of the moderating cross-cultural effects on the relationship between sports content, visual appeals, and fan engagement, we have only included subjects in the study that are either American or Indian. The results confirmed that the relationship between sports content, visual emotional appeals, and fan engagement is moderated by cross-cultural effects (H5a). However, we did not find significant results for hypothesis H5b. Lastly, we hypothesized that the relationship between sports content, visual appeals, and fan engagement is also moderated by the media type in which social media sports content is embedded. The results confirmed hypothesis H6a. However, we did not find evidence for our hypothesis H6b.

From an academic perspective, the contribution of this study is twofold: Firstly, this study contributes to the upcoming literature stream of sports digitalization in IS literature (see, Gruettner (2019) or Xiao et al. (2017)). In this vein, we answered the calls of several researchers (e,g., Achen et al. (2018), Romney and Johnson (2020), or Vale and Fernandes (2018)) to investigate the sports content drivers that trigger social media fan engagement in an international context and proposed a unique research model to academia. In detail, our research model links sports organizations' brand attributes – that is, product-related and non-product-related attributes – with social media sports content categories and the concept of visual emotional and informational appeals to explain how specific sports content categories constitute fan engagement on social media. On top of that, our research model sheds light on how the relationship between sports content, visual appeals, and fan engagement is moderated by cross-cultural and media type effects. Therefore, we conducted the first study, which investigated content drivers, visual appeals, and cross-cultural and media type effects in social media international fan engagement. In future research, our research model can be extended and adjusted to different sports content categories and national cultures. Secondly, we believe that the sports industry, due to its unique characteristics (see, Gruettner (2019) or Xiao et al. (2017)), provides us with insightful opportunities to study digitalization-related phenomena that cannot be easily observed in generic business contexts. This stands in line with Xiao et al. (2017), who proposed a research agenda for the IS

community that suggests why and how we should study sports digitalization in the IS discipline. Hence, we believe that our findings go beyond the sports literature and provide important insights into social media consumer engagement in general. In this sense, the developed research model can be adopted and adjusted to different online engagement contexts, for instance, to test the moderating effect of cross-cultural effects in different industries. For social media practitioners, our study offers important managerial implications: First, our findings provide guidelines on how to create influential posts and, more importantly, how to adjust emotional and informational appeals to maximize content effectiveness. In designing posts on social media, practitioners can, therefore, choose to include more/different or less emotional and informational cues in the visual content of posts. Our results go beyond the application of sports and give practitioners many clues about what type of social media content increases the liking and sharing of a post in general. Second, we proved that there are cross-cultural as well as media type effects between social media content, visual appeals, and online engagement. Hence, the results of this study should be seen as a wake-up call for practitioners to consider cross-cultural and media type effects in their social media strategies.

This study is not free from limitations: First, the photos and videos presented in our experiment have previously been published on the social media channels of the German Bundesliga. Therefore, on the one hand, we can guarantee a realistic real-world setting. On the other hand, this can lead in some cases to side effects (e.g., the subjects have seen the photos/video before). Second, we only investigated visual content, that is, photos and videos, in this study. Social media posts usually also consist of textual content that is often included in the form of photo or video captions. Informational and emotional appeals can be embedded in both textual as well as visual content. Thus, studying textual content and their interaction with visual content can become relevant. Third, we used the subjects' nationalities as a proxy for their national culture. Although this approach is common in research (e.g., Hudson et al. (2016)), one can argue that culture has to be measured along previously defined valid dimensions/scales. Fourth, we only included subjects whose nationality is either American or Indian in our analyses. An extension of the scope of this study to include a variety of nationalities may become relevant. Fifth, because we worked with an online population and used observed behavior, it is likely that our sample suffers from self-selection bias. Sixth, we believe that the lack of further control variables could be a limitation. For instance, the influence created by friends in SNSs. Lastly, in times of COVID-19, nobody can exactly

say how the subjects in our experiment were influenced by it. Particularly because at the time of our data collection, almost all sports events worldwide were canceled.

Conclusion

By building upon CET, we linked sports organizations' brand attributes, the concept of emotional and informational visual appeals, and fan engagement. Therefore, we proposed a unique research model to academia and analyzed (1) social media sports content drivers for fan engagement and (2) cross-cultural effects that moderate the relationship between sports content categories, visual appeals, and fan engagement. The results of the conducted experiment with four treatments demonstrated that product-related sports content – that is, content that originates from the actual game on-site the field of play (e.g., player skills or match highlights) – had a significant effect on emotional visual appeals. It is crucial that sports organizations understand how to adjust visual appeals to maximize content effectiveness, as our analyses yielded significant evidence that emotional visual appeals have a positive effect on fan engagement. Furthermore, the study showed significant results that the relationship between sports content, emotional visual appeals, and fan engagement is moderated by cross-cultural and media types effects. The results of this study, therefore, provide guidance for social media practitioners on how to create influential posts and offer important insights into consumer online engagement in an international context and in general. Future research should adopt and adjust our research model to different contexts.

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