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**THE INFLUENCE OF  
GEOGRAPHICAL DISTANCE ON  
MOTIVATIONS FOR SOCIAL MEDIA  
ENGAGEMENT AND ITS INFLUENCE  
ON FAN LOYALTY: A COMPARISON  
OF LOCAL AND INTERNATIONAL  
SATELLITE FANS**

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PhD

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# Abstract

Professional sports teams and leagues that play at a superior level and have sporting success on an international level nowadays have a large number of geographically distant fans. These fans are labelled in the literature as satellite fans (Kerr & Gladden, 2008). The emergence of the internet, especially social media, allows these satellite fans to stay in constant contact with their favourite team (Kerr & Emery, 2011; Li et al., 2019). However, little is known about the use of social media by satellite fans and its consequences for their fandom. Therefore, this study investigates the motivations for social media engagement with team-related content and the impact of this social media engagement on fan loyalty of satellite fans and compares them to local fans. In particular, this research focuses on NHL fans in Germany (satellite fans), USA and Canada (local fans) that use Instagram to follow their team's official account and/or other related accounts. The local fans reside within 100 miles (160 km) of their NHL team's home stadium (Collins et al., 2016; Richelieu & Pons, 2009). This comparison reveals how geographical distance from a favourite sports team affects social media use and its offline impact on fan loyalty.

Uses and gratifications theory was applied to examine the relationship between motivations for media use (entertainment, integration and social interaction, personal identity, information, remuneration, and empowerment) and consumers' online brand-related activity levels (consumption, contribution, and creation). In addition, the relationship between these three online engagement levels and attitudinal and behavioural fan loyalty was

investigated. An online questionnaire was conducted and disseminated via social media for data collection. A local fan sample (n = 472) and a satellite fan sample (n = 465) were collected. Quantitative methods using confirmatory factor analysis and structural equation modeling were applied to confirm the conceptual model. The chi-square difference test was used to compare the local and satellite fan samples and identify differences.

The analysis revealed seven paths in the conceptual model that showed statistically significant differences between the two fan groups. Further differences were found at a descriptive level. The results showed that local fans have a smaller set of motivations to engage in social media compared to satellite fans. In addition, social media engagement with team-related content has a greater and usually stronger impact on fan loyalty among satellite fans than among local fans. These results underline that satellite fans have a higher dependence on social media than local fans. It also demonstrates that local and satellite fans are two distinct fan groups in terms of their motivations for social media engagement with team-related content and its influence on their fan loyalty. Furthermore, the study shows that social media can be used as a strategic tool to influence the loyalty of both local and satellite fans. Implications are made on how to address these groups collectively and individually via social media.

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# Author's Declaration

I declare that the work contained in this thesis has not been submitted for any other award and that it is all my own work. I also confirm that this work fully acknowledges opinions, ideas, and contributions from the work of others.

Any ethical clearance for the research presented in this thesis has been approved. Approval has been sought and granted by the Faculty Ethics Committee on 17/02/2021.

**I declare that the Word Count of this Thesis is 78.940 words.**

Name: Valentin Nickolai

Date: 11/01/2023

# 1 Introduction

## 1.1 Chapter Overview

This chapter provides an introduction to this PhD thesis on the fan usage of social media and its influence on fan loyalty among local and geographically distant sport team fans. This study will examine whether there are differences or similarities between these local and geographically distant fans in this respect. Therefore, this chapter begins with a presentation of the research background as well as the research focus, the gap and its justification. The research aim, questions, and objectives are then formulated and the research methodology is briefly described. This is followed by a discussion of the intended contributions of this research. At the end of this chapter, an overview of all chapters is given and thus the overall thesis structure is presented.

## 1.2 Research Background: The Internationalisation and Digitalisation of Professional Sports

Professional sports leagues and teams are becoming increasingly international. It is no longer an exception for foreign investors to own and operate sports teams (Ludvigsen, 2019) and for years the teams have been composed of a large number of foreign players (Sky Sports, 2017). However, saturated local markets and growth opportunities abroad are driving sports organisations to target fans from other countries (Murphy, 2018; Post & Druker, 2018; Ratten & Ratten, 2011; Richelieu, 2016; Woratschek et al., 2008). In practice, professional sports organisations have long recognised that their fan community also consists of geographically distant fans in their own



country or even abroad. In literature, these fans who reside in a geographical distance from their favourite team are referred to as satellite fans (Kerr & Gladden, 2008). They are introduced and discussed in more detail in chapter 2.

In particular, sports organisations that play at a superior level and have sporting success on an international level have the opportunity to expand their fan community abroad (Falcous & Maguire, 2006; Kerr & Emery, 2011; Pu & James, 2017). Manchester United of the English Premier League is therefore an impressive example. Almost 50% of their fans live in the Asia-Pacific region. In contrast, just under 14% of their fans come from Europe and only 0.1% from their own city (BBC, 2013). Another striking example is the National Basketball Association (NBA), which has 640 million fans from China, roughly twice the population of the entire United States (US) (Sprung, 2019). But other sports are also popular outside their home market. For instance, more than 18% of the Mexican population, or almost one in five Mexicans, are fans of the National Football League (NFL) and its teams (McCarthy, 2015).

In order to systematically target satellite fans and draw attention to their brand, sports organizations apply various marketing approaches (Falcous & Maguire, 2006; Richelieu, 2016; Richelieu et al., 2008). The international sale of broadcasting rights, games, and training camps abroad, the acquisition of international sponsors or sponsors from target markets, the international sale of merchandising articles as well as the recruitment of players from target markets can all be part of a holistic internationalisation strategy (Breuer et al., 2018; Murphy, 2018). Furthermore, game schedules and kick-off times are

adjusted by sports leagues to better suit audiences in target countries (Lopez-Gonzalez & Griffiths, 2018).

The NBA, for example, has used its Chinese-born star player Yao Ming to successfully address the Chinese market (Schmidt, 2004). The league has also permitted Chinese fans to decide the identity of an NBA team in the Chinese-speaking world. They were allowed to choose from three suggestions and have decided that the Dallas Mavericks will be marketed as Lone Ranger Heroes in China (Sport Bild, 2018).

The National Hockey League (NHL) also targets the Chinese market. They held exhibition games in Beijing, Shenzhen, and Shanghai (NHL, 2022b). Furthermore, various NHL teams, such as the New Jersey Devils, the Vancouver Canucks, or the Vegas Golden Knights celebrate the Chinese New Year in social media and also wear special Lunar warm-up jerseys (New Jersey Devils, 2019; Vancouver Canucks, 2022a; Vegas Golden Knights, 2022).

But the European market is also addressed by the NHL. Under the name Global Series Challenge, the Nashville Predators, and the San Jose Sharks played preparation games against local teams from Switzerland and Germany in 2022. In addition, official NHL season games were also played in the Czech Republic and Finland as part of the Global Series (NHL, 2022a). Similarly, other sports leagues also organize games abroad. The NFL, for example, has been playing games abroad for many years. In 2022, three season games were played in England and one each in Germany and Mexico (NFL, 2022).

Moreover, the NFL has considered relocating one of its teams to the city of London in England to increase its visibility in Europe (Cancian, 2019).

The fact that sports fans are interested in and even strongly identify with geographically distant sports teams has emerged because of globalisation and advances in communication technology (Kerr & Emery, 2011). These technical developments have not only increased the reach of sporting events, but also reduced the costs of broadcasting it worldwide (Lopez-Gonzalez & Griffiths, 2018). While satellite television (TV) has made it possible to watch games from abroad, the internet has given sports fans the opportunity to interact with other fans, their favourite team, or athletes (Kerr & Emery, 2011; Pegoraro, 2013). The internet and digital media allowed fans to consume sports regardless of time and place (Kerr & Emery, 2016; Li et al., 2019; Pu & James, 2017). Digitalisation has thus fundamentally changed sports fandom and sports consumption (Rowe, 2014).

The influence of social media is particularly noteworthy here. Social media has enabled sports fans to consume, like, comment on, and share sports content or even post own-created content about their favourite team (Vale & Fernandes, 2018). This development in particular has simplified the interaction of sports fans with other fans, their team, or athletes via the internet, making it accessible to everyone. Nowadays, social media has become an integral part of daily life. Consequently, these online media can serve as a socializing agent for sports fans, especially satellite fans for whom social media is usually the primary contact with their favourite team due to their geographical distance (Phua, 2010; Pu & James, 2017).

Sports organizations are aware that social media can be applied as a tool to build and strengthen relationships with their fans (Williams & Chinn, 2010). It can be used for local fans, but also addressing satellite fans. Although social media is considered an important tool for targeting satellite fans and thus for the internationalisation of a sports team, this phenomenon has only been investigated in a limited number of studies. A systematic literature review, which is presented in detail in chapter 2, has revealed a research gap regarding satellite fans and social media. Most of the satellite fan studies have focused on team identification of these fans (e.g. Andrijiv & Hyatt, 2009; Lianopoulos et al., 2020; Menefee & Casper, 2011; Reifurth et al., 2019; Tsordia et al., 2021; Wann & Martin, 2011). Even though there is already research examining satellite fans in relation to media, the literature lacks research on satellite fans' social media usage and associated influence on their fandom. In particular, the impact of motivations for social media use on different engagement levels and its influence on fan loyalty has not yet been investigated in the context of satellite fans.

One reason for this is that the sports management literature has so far focused mainly on geographically local fans (Collins et al., 2016; Pu & James, 2017), which is understandable given their proximity and the lack of digital channels in the 1990s and the decades before. Furthermore, the satellite fan segment is an emerging research field that has only gained in importance in recent years with the establishment of digital media. Therefore, it is important for sports management scholars and sports organizations to better understand the social media behaviour of satellite fans and its influence for several reasons. The internationalisation of a sports brand offers growth opportunities

(Richelieu, 2016) and the strategic use of social media could have a particularly strong impact on satellite fans through their dependence on this medium (Li et al., 2019). In addition, given the inconsistent success of a sports team, sports brands are well advised to extend their brand to foreign markets to ensure their long-term viability (Breuer et al., 2018; Kerr & Gladden, 2008).

An increasing number of sports leagues and teams are targeting foreign markets. In a competitive global marketplace, it is important for sports organisations to understand their satellite fans (Kerr & Emery, 2011). In particular, the loyalty of satellite fans will have a long-term impact on the success of internationalisation (Robinson, 2012). As sports fans' interest in traditional websites declines (Baena, 2016), the interactive and real-time nature of social media may particularly strengthen relationships with these fans (Stavros et al., 2014). Therefore, social media engagement could have a positive impact on the loyalty of satellite fans. Studies that examine and compare satellite and local fans' usage of social media and its impact on fan engagement are needed to fill this literature gap.

### 1.3 Research Aim, Questions and Objectives

The research background of this study demonstrated that it is important to shed light on the social media usage of satellite fans and its consequences for their loyalty. As the sports management literature has mainly concentrated on local fans (Collins et al., 2016; Pu & James, 2017), a comparison between these fans and satellite fans would reveal whether they are distinct fan groups in terms of social media use and its influence on loyalty. Therefore, the research aim of this study is as follows:

*To explore the extent to which local and satellite fans differ in the motivations for social media engagement and the influence of social media engagement on their fan loyalty.*

Satellite fans have limited access to their favourite team due to their geographical distance and rely heavily on digital media to maintain this contact (Li et al., 2019). In contrast, local fans have better access to their favourite team, to fan merchandise shops, to local fan events, experience higher media coverage of their team and are surrounded by many other local fans due to their geographical proximity (Kerr & Gladden, 2008; Li et al., 2017; Pu & James, 2017). As local fans benefit from their geographical proximity and are therefore less dependent on digital media, this could lead to significant differences between the two fan groups in terms of their motivations for social media engagement and its influence on their fan loyalty.

In particular, the two extremes of geographical proximity and foreign geographical distance, which lead to additional differences in language and time between both fan groups, will be compared in this study. Thus, this study focuses on international satellite fans, i.e. fans who reside in a country other than their favourite team (international satellite fans are defined in more detail in subchapter 2.2.9). In this comparison, the possible influence of culture is not examined in this study. Two research questions (RQ) arise from the aim of this study.

**RQ1:** *How are the motivations for social media engagement with their favourite team different between international satellite fans and local fans?*

**RQ2:** *How does the impact of social media engagement with their favourite team on fan loyalty differ between international satellite fans and local fans?*

To answer the two research questions and fulfil the aim of this research, five underlying research objectives (RO) were identified. They are listed below.

**RO1:** *Conduct a systematic literature review on the satellite fan segment to identify its current state of research.*

**RO2:** *Critically review the extant literature concerning motivations for social media engagement, social media engagement, and fan loyalty as a basis for creating a conceptual model.*

**RO3:** *Develop an appropriate methodology for collecting and analysing data and test the conceptual model to answer the research questions.*

**RO4:** *Discuss the results in the context of the existing literature and compare the results of local and international satellite fans.*

**RO5:** *Certify that this study has achieved its research aim and identify the contributions, limitations and areas for future research.*

This study is based on a positivistic worldview and consequently follows a quantitative methodology (Saunders et al., 2016). Therefore, an online questionnaire was created, tested in a pilot study and used for data collection. After validation of the online questionnaire, it will be used for data collection. Confirmatory factor analysis (CFA) followed by structural equation modeling (SEM) will be used to analyse the collected data and test the conceptual model

(Hair et al., 2014). Finally, to answer both research questions, the differences and similarities between local and satellite fans in the conceptual model will be determined by the chi-square difference test (Byrne, 2010).

#### 1.4 Intended Theoretical and Practical Contributions

The current study will make several contributions to the literature by comparing the motivations for social media engagement with a favourite team and its influence on fan loyalty between local and satellite fans. Therefore, this study will investigate the internationalisation of sports teams from the fan perspective. The intended contributions are discussed in the following.

This research will extend the the uses and gratifications (U&G) theory by incorporating geographical distance as a moderator. In particular, the consumers' online brand-related activities (COBRAs) framework by Muntinga et al. (2011) is expanded to include the impact on fan loyalty and consideration of the influence of geographical distance. Thus, the conceptual model of this study will add to previous research by combining motivations for social media engagement, different social media engagement levels with brand-related content, fan loyalty, and geographic distance in a single framework. By testing the conceptual model, differences, and similarities between local and satellite fans will be identified. Therefore, the sports management and social media literature will be extended by analysing the moderating effect of geographical distance on the drivers of social media engagement and its impact on loyalty for sports fans. In this way, this study also contributes to additional knowledge about the COBRAs framework.



This study will particularly compare local and German NHL fans who use the social media platform Instagram to engage with brand-related content of their favourite team. The NHL is a professional ice hockey league with teams from the USA and Canada, so both US and Canadian fans can be referred to as local fans of the league. While 40% of the US population is interested in the NHL (Gough, 2022a) and 50% of the Canadian population are NHL fans (Bozinoff, 2014), there is also a large hockey market in Germany. More than 5.4 million Germans are ice hockey fans and are particularly interested in this sport (Statista, 2022b). In addition, Germany previously held the world record for the highest number of spectators at an ice hockey game, with more than 77.000 people attending the game when the German national team beat the US national team in overtime at the 2010 World Cup (Baier, 2020). After football, ice hockey is the sport that attracts the most spectators to stadiums in Germany (Klaas, 2017).

Due to the increasing number of German NHL players, above all Leon Draisaitl, who was voted the most valuable NHL player in 2020, and younger high potential players such as Moritz Seider (first German to win the Calder Trophy as the best NHL rookie in 2022) and Tim Stützle (Neuhaus, 2022; Satriano, 2020), more and more Germans follow the NHL. The NHL has already recognised this trend and is therefore targeting the German market with exhibition games and increasing amount and quality of German-language online content (Baier, 2020; NHL, 2022a).

In addition, the social media channel Instagram is highly valuable for sports fans (Haugh & Watkins, 2016) and thus also sports organisations. The official

English-language NHL Instagram account, for example, has 5.6 million followers (SpeakRJ, 2022). Furthermore, Instagram has large and growing user numbers in the US, Canada, and Germany and ranks fourth in the world with almost 1.5 billion monthly active users (Dixon, 2022b; Rabe, 2021, 2022a, 2022b). Only the social networks WhatsApp (2 billion), YouTube (2.6 billion), and Facebook (2.9 billion) have more monthly active users than Instagram (Dixon, 2022b). Therefore, a large proportion of social media engagement studies have already been conducted with Facebook (e.g. Buzeta et al., 2020; Mishra, 2021; Piehler et al., 2019; Tsai & Men, 2013, 2017; Vale & Fernandes, 2018; Yesiloglu et al., 2021). In contrast, the author is only aware of one COBRAs study that investigates Instagram (Buzeta et al., 2020).

For brands with a diversified audience, such as ice hockey teams (Eishockey News, 2020; Gough, 2022b) it is advisable to use Instagram in addition to the largest social network, Facebook (Keenan, 2022; Sanders, 2022). This is because Instagram is mainly used by younger people, while Facebook's audience is comparatively older (Keenan, 2022). Moreover, the two social media platforms also differ. Facebook is more community-centric through its group function (Sanders, 2022), while Instagram is particularly well suited for branding due to its visual forms and information (Doyle et al., 2022; Keenan, 2022). Therefore, Instagram has been widely used by sports organisations (Anagnostopoulos et al., 2018). So despite its importance for marketing, there is too little COBRAs research on Instagram compared to Facebook.

Therefore, comparing local and German NHL fans who use Instagram to engage with content from their favourite team will add to the literature related

to these populations and social media. While the sports management literature on satellite fans will be extended with research on German NHL fans, the social media literature will be supplemented with additional insights on Instagram engagement and its influence on loyalty.

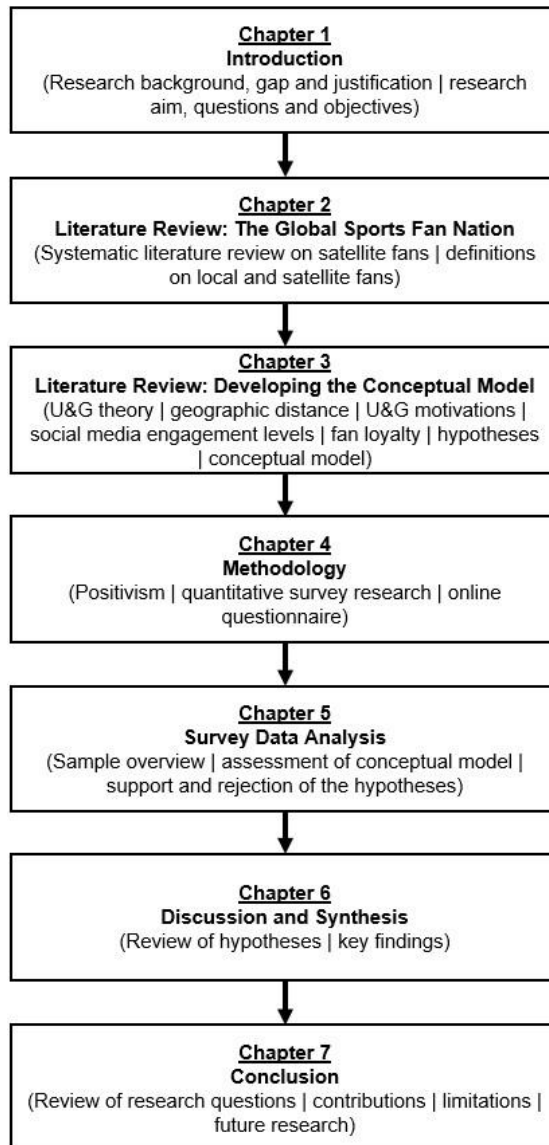
The comparison between local and satellite fans will be based on a taxonomy that will be developed as part of the literature review of this study. The taxonomy will especially add to the current body of satellite fan segment literature, as it will cluster local fans and satellite fans with their various subtypes based on geographic constraints.

Furthermore, practical contributions will also be derived from the findings of the comparison between local and satellite fans. As professional teams that have sporting success on an international level and in superior sports leagues nowadays often have a large number of satellite fans supporting them, and social media can be used to build and strengthen relationships with fans (Williams & Chinn, 2010), the findings will be relevant for these sports organisations. The results of this study will show how local and satellite fans can be targeted on social media to trigger different levels of social media engagement. In addition, the results will demonstrate how sports organizations can increase the loyalty of their fans by triggering specific levels of social media engagement. As this study will explore the differences and similarities between local and satellite fans in this regard, sports organizations can conclude how to address these fan groups individually or collectively on social media.

## 1.5 Thesis Structure

In general, this thesis is organized in seven main chapters. These chapters are listed with their main contents in the following figure and briefly explained in this subchapter.

*Figure 1: Structure of the PhD Thesis*



The research background with its gap and justification as well as the research aim, questions, and objectives were explained in chapter 1. The introduction chapter is followed by a literature review. This literature overview is divided into two chapters. In chapter 2, a systematic literature review on the satellite

fan segment is conducted. The local fan is also introduced within this chapter. On that basis, a taxonomy for local and satellite fans is developed. In chapter 3, the literature review focuses on the U&G theory, its motivations for media use, different social media engagement levels, sports fan loyalty, and geographic distance. Based on this literature the conceptual model and the corresponding hypothesis are developed.

Thereafter, the quantitative research methodology of this study is explained in detail in chapter 4. The collected data is then analysed in chapter 5. In this chapter on data analysis, a sample overview of the local and satellite fans is presented and the hypotheses are supported or rejected on the basis of the assessment of the conceptual model. In chapter 6, these findings are discussed by reviewing the hypotheses. In addition, this discussion chapter provides a summary of the key findings of the local and satellite fans as well as of their comparison. Finally, chapter 7 reviews the research questions and outlines the contributions, limitations, and future research directions.

## 1.6 Chapter Summary

This chapter has laid the foundation for this research. Examples were used to show that various professional sports leagues and teams have numerous geographically distant fans and that digital media is a major driver of this internationalisation. The literature gap and justification of this research were also outlined. Furthermore, the research aim, questions, and objectives were determined with their intended research contributions. In addition, the methodology of this study was briefly described. This chapter was concluded by an overview of the thesis structure.

## **2 Literature Review: The *Global Sports Fan Nation***

### **2.1 Chapter Overview**

Technology is changing sports fandom. In the past only local fans had access to their favourite team. Nevertheless, TV broadcasts, which were mostly limited to certain countries or regions, have given a multitude of spectators and potential fans access to the games of geographically distant sports teams (Kerr & Gladden, 2008; Sandvoss, 2003). However, it was not until the advancement of the internet and digital media that almost every person in the world was given the opportunity to have direct access to a sports team and to connect with other fans, regardless of time or place (Kerr & Emery, 2016; Li et al., 2019; Pu & James, 2017). As a result, an increasing number of geographically distant domestic and foreign fans are supporting teams that play in the world's strongest division of a certain sport. In the literature these fans are called satellite, distant, and displaced fans (Collins et al., 2016; Kerr & Gladden, 2008; Pu & James, 2017).

In contrast to local fans these geographically distant fans have hardly been explored in the literature (Cho, Chiu, et al., 2021; Collins et al., 2016; King, 2009). Therefore, this chapter presents findings about the local fan and then describes how a systematic literature review of the satellite fan segment was conducted. The results of the systematic literature review outline the current state of research in the satellite fan segment. It becomes clear that the satellite fan segment is an emerging and under researched area. Furthermore, different terms and definitions are used for geographically distant fans. For this

reason, the *Global Sports Fan Nation* framework is created. It combines local and satellite fans as a unified fan base of a sports team and provides uniform definitions based on geographic constraints. In this context, the distant fan and the displaced fan are introduced as specific subgroups of satellite fans from the literature (Collins et al., 2016; Pu & James, 2017). In addition, a subgroup of satellite fans previously unknown in the literature, namely detached fans, is created to complete the *Global Sports Fan Nation* framework. The framework highlights the existence of satellite fans on a national and international level and is used as a definitional basis for the populations examined in this study.

## 2.2 The Emergence of the *Global Sports Fan Nation* in Practice and Research

### 2.2.1 The Declining Importance of Geographical Proximity Between Sports Fans and their Favourite Team

Geography and physical proximity used to be highly important for sports fandom. Sports clubs are often valued as representatives of a particular city or region and described as a tool to demonstrate local community pride (Heere & James, 2007; Jarvie, 2003; Watkins & Cox, 2020). This pride in the local community and local identity leads numerous sports fans to support a local team (Hunt et al., 1999; Jones, 1997; Watkins & Cox, 2020). Therefore, geographic proximity is also mentioned in the literature as significant for the choice of the favourite team and as a key socialisation agent for the identification of sports fans with that favourite team (Bale, 2003; Hunt et al., 1999; Keaton & Gearhart, 2014; Wann, 2006a; Wann et al., 1996). Jones

(1997) even identified locality as the most convenient reason to follow a sports team.

However, the importance of physical proximity for sports fandom is already declining. While in the past people followed and supported sports clubs mainly because of their geographic proximity and place of residence (Jones, 1997; King, 2009), nowadays there are also numerous fans who reside far away from their favourite sports team (Bodet et al., 2020; Collins et al., 2016; Lianopoulos et al., 2020; Pu & James, 2017). In spite of the increasing mobility of our world population, sports fans continue to support their former local team, to which they have built up an identification as a child or teenager for example (Collins et al., 2016). This applies not only to fans who have moved away, but also to the relocation of franchises (Lewis, 2001). Additionally, there are also a multitude of fans who have never been geographically close to their favourite sports team (Farred, 2002; Pu & James, 2017; Woratschek et al., 2008). Therefore, Pu and James (2017) have called to “rethink the role of “place” in the creation of fandom” (p. 435).

Studies have already shown that more than geographical proximity is required for fans to feel a high level of team identity (Heere & James, 2007; James, 2001). In general, there are a multitude of different other reasons for sports fans, such as the players of the team or team success, to follow and identify with a specific sports team (Hyatt & Andrijew, 2008; Wann et al., 1996). Furthermore, due to technological advances and globalisation the world has grown smaller and thus geographic proximity is less important to the sports fans' connection to a favourite team than it used to be (Collins et al., 2016;



Ratten & Ratten, 2011). Pu and James (2017) highlighted that this development was even called “the death of distance in sports fandom” by Real (2006, p. 191). Additionally, they described digital media as an important socialization agent for geographically distant sports fans. Because the internet overcomes geographical and time constraints (Baena, 2019; Pegoraro, 2013), it is the first access point for remote sports fans to stay connected with their favourite team.

The following collection of different definitions of the term sports fan will show that geographical proximity to the favourite team is not a requirement for calling a person a sports fan. In principle, it is impossible to define the typical sports fan as sports fans exhibit a variety of different behaviours, attitudes, and values (Samra & Wos, 2014; Stewart et al., 2003). However, numerous researchers have developed sports fan definitions. Since there are a multitude of sports fan definitions in the literature, only selected ones are presented below.

Dietz-Uhler et al. (2000) define a sports fan as “anyone who perceives themselves to be a fan of sport” (p. 227). This is in accordance with King (1998) who emphasizes that a person is a fan as soon as they see themselves as a fan, because it is impossible to prove that it is not so. Also Hunt et al. (1999) did not include geographical proximity as a basic requirement for a sports fan in their definition. They simply define a sports fan as “an enthusiastic devotee of some particular sports consumptive object” (p. 440). As the terms sports fan, sports spectator, and sports consumers are often used interchangeably in the literature, Wann et al. (2001) differentiate between them. They define

sports fans as “individuals who are interested in and follow a sport, team, and/or athlete” (p. 2). In contrast, they describe sports spectators and sports consumers as “individuals who actively witness a sporting event in person or through some form of media (radio, television, etc.)” (p. 2). What is particularly noticeable in this definition is that consumption through media, which is usually the only access point of satellite fans to their favourite team, is explicitly mentioned. Da Silva and Las Casas (2017) also distinguish sports fans from sports spectators and state that spectators “will observe a sport and then forget about it, while fans will have more intensity and will devote part of every day to the team or the sport itself” (p. 35-36).

Overall, none of the presented definitions include geographic conditions to define a sports fan, spectator, or consumer. The author will follow the sports fan definition of Dietz-Uhler et al. (2000) and defines any person who considers themselves a fan of sports as a sports fan. This definition is particularly suitable for this study as it does not tie sports fandom to geographical proximity to a sports consumptive object, thus confirming that both local and geographically distant fans can be described as sports fans. In this study, however, fans of sports teams are examined in particular.

Even though only a limited selection of generalist sports fan definitions has been presented here, they show that geographical proximity to the favourite team is not a requirement for being a fan of that team. However, this view is not always supported by the morals of more traditional local sports fans. Some of them consider themselves as more loyal and believe that only the local sports team can be a fan’s true favourite (Bridgewater, 2010; Hognestad,

2009). Therefore, it must be underlined that geographically distant fans are a distinct type of a sports fan than local fans are.

The following subchapters will discuss and differentiate between different types of sports fans based on geographical constraints. For this purpose, the next subchapter will introduce the local fan in detail. Afterwards different geographically distant sports fan types will be presented.

## 2.2.2 The Local Fan

### *2.2.2.1 Different Approaches to Defining the Local Fan*

To date the sports management literature has mainly concentrated on geographically local fans (Collins et al., 2016; Pu & James, 2017). This can be explained by the fact that these fans are more visible for their local teams, have more consuming possibilities than geographically distant fans, and are therefore more accessible for researchers. Local fans, for example, can attend home games of their favourite sports team and purchase merchandise at local stores without having to overcome major hurdles. Furthermore, they receive greater media coverage (e.g. newspaper or local radio show) of their favourite team (Kolbe & James, 2000; Wann, 2006b).

According to Jones (1997) the two most common reasons why soccer fans currently support their favourite team are that the team is local and that they were born in the city or town of their favourite team. This could be due to the increased opportunity to watch the favourite team in person. As this study was conducted over two decades ago, this may be changing due to the permanent accessibility to geographically distant sports teams via digital media. Hunt et

al. (1999) classified sport fans according to their fan-like behaviour and motivation into five different fan types: temporary, local, devoted, fanatical, and dysfunctional fan. In this classification it is highlighted that the temporary and local fan have only little emotional attachment to their favourite sports object. The further strengthening of their emotional attachment would transform these fan types into devoted fans and, if increased again, into fanatical fans. Dysfunctional fans have the strongest emotional attachment to their favourite team. Nevertheless, the dysfunctional fan exhibits behaviour that disrupts the sports event and its social interchanges. The motivations, attachment, and behaviour of every of these fan types are briefly summarised in the following table.

Table 1: Sport Fan Classification according to Hunt et al. (1999)

Classification	Motivation and Attachment	Behaviour
<b>Temporary Fan</b>	<ul style="list-style-type: none"> <li>• Internalize the sporting success of a sports team</li> <li>• Values social aspects of sports events</li> <li>• No high emotional attachment</li> </ul>	<ul style="list-style-type: none"> <li>• Only interested in a limited time-bound event and becomes a non-fan after the event</li> <li>• Disassociate from sports team if it has no more success</li> </ul>
<b>Local Fan</b>	<ul style="list-style-type: none"> <li>• Identification with a geographic area (e.g. place of birth or residence)</li> <li>• Being a fan is only an incidental part of the self-identification</li> <li>• No high emotional attachment</li> </ul>	<ul style="list-style-type: none"> <li>• Moving away from the geographic area leads to decreasing interest in the sports consumptive object</li> </ul>
<b>Devoted Fan</b> (Originally started as a temporary or local fan)	<ul style="list-style-type: none"> <li>• Being a fan is an important part of the self-identification, but not the most crucial part</li> <li>• High emotional attachment</li> </ul>	<ul style="list-style-type: none"> <li>• Loyal to their sports team even if time-bound event has expired or if they moved from the geographic area of the sports team</li> <li>• Remain as a fan even during losing seasons</li> <li>• Want to attend games, watch live broadcastings, and purchase branded products</li> <li>• Seeks information about the sports team</li> </ul>
<b>Fanatical Fan</b> (Previous devoted fan)	<ul style="list-style-type: none"> <li>• Being a fan is a particularly important part of self-identification, but there is at least one more crucial part</li> <li>• Very high emotional attachment</li> </ul>	<ul style="list-style-type: none"> <li>• Want to attend games, watch live broadcastings, purchase branded products, and is more loyal to sponsors</li> <li>• Exhibit stronger supportive fan behaviour than the devoted fan (e.g. paint body in team colours)</li> <li>• Like to express their devotion in public</li> </ul>
<b>Dysfunctional Fan</b>	<ul style="list-style-type: none"> <li>• Being a fan is the most important part of self-identification</li> <li>• Extremely strong emotional attachment</li> </ul>	<ul style="list-style-type: none"> <li>• Anti-social or violent behaviour, which is justified because of being a fan</li> <li>• Behaviour disrupts sports events and their social aspects</li> <li>• May neglect their family, friends, or job as their identification prevents them from performing other social roles outside of being a fan</li> </ul>

Even though this sports fan classification explicitly separates the local fan from the other fan types, these can also contain local elements. This is because for example a devoted or fanatical fan may have started their fandom as a local fan in terms of this classification. In this subchapter, however, only the local

fan type from Hunt et al. (1999) will be discussed in more detail, as in its definition the geographic connection to the local area is specifically mentioned.

According to Hunt et al. (1999) the local fan is bounded to the local team by “geographic constraints” (p. 444). This geographic identification with the area in which the fan resides and the widespread belief that sports teams are representatives of geographic locations (e.g. city or state) cause locals to engage in fan-like behaviours (Collins et al., 2016; Hunt et al., 1999). The geographic proximity between locally based fans and their favourite sports team has led the literature to suggest that these fans consider themselves as better or even more loyal supporters than geographically distant fans (Bridgewater, 2010). However, according to Hunt et al. (1999) the local fans’ devotion to their favourite team diminishes if they move away from the city where their favourite team is located. Additionally, Hunt et al. (1999) states that local fans use their fandom only peripheral for their self-identification and thus do not have a strong emotional attachment to their favourite sports object.

Based on Hunt et al. (1999) classification scheme Agas et al. (2012) found that the local fan classification is not a separated fan type, but that its local dimension is incorporated into the temporary and devoted fan classifications. This is in line with the criticism of Hunt’s (1999) classification scheme expressed above, that local elements can also occur in other fan types. The definition of Hunt et al. (1999) assigns only a non-profound and transitory fanship to the local fan, which is partly similar to the temporary fan classification (Agas et al., 2012). Since there are also highly loyal sports fans who support their favourite team because of geographic proximity, Agas et al.

(2012) have demonstrated the existence of two differently committed local fan types. They created the two new local sports fan types of the temporary local fan and the devoted local fan based on the results of personal interviews with 315 persons.

Temporary local fans are bounded to their favourite team because of a geographic identification and their fandom is limited to time constraints (Agas et al., 2012). These time constraints can be, for example, a specific tournament or a successful season (Agas et al., 2012; Pimentel & Reynolds, 2004). In addition, temporary local fans have only a situational motivation to engage in fan-like behaviour and do not use their fandom for self-identification (Agas et al., 2012; Hunt et al., 1999). These fans only support a local team because they feel they should show some level of devotion to the place where they were born or where they currently reside (Agas et al., 2012; Jones, 1997). This suggest that temporary local fans who were not born in the city of their favourite sports team, but lived there for a limited time, no longer support that team after moving to another city. From a geographic perspective, it is critical that temporary local fans who have moved far away from their hometown and continue to support their former local team are still referred to as a type of local fan. These are rather displaced fans, which are introduced in more detail in subchapter 2.2.7.

The devoted local fans' fandom also originates from the identification with a geographic area. In contrast to temporary local fans, devoted local fans are having a strong attachment to their favourite team and consider it part of them. This fan type represents the "die hard" sports consumer who remains loyal to

their team during both successful and unsuccessful seasons. Even if devoted local fans move away from the geographical area of their favourite team, they will continue to support their local team (Agas et al., 2012; Fisher & Wakefield, 1998; Hunt et al., 1999; Mason, 1999).

However, not all local fan definitions do focus on fan-like behaviour or motivation. The local fan definition of Pu and James (2017) is not based on behaviour or motivation, but takes the current place of residence of the sports fan into account. They describe a local fan as “one that resides in geographic proximity to a favourite team” (p. 419). Because of this geographic proximity sports fans often support and are bounded to local teams (Hunt et al., 1999; Jones, 1997; Wann et al., 1996).

The importance of a geographical closeness was already highlighted by Rooney (1975), who defines a fan region as the home team’s field. This fan region also includes “...to a lesser extent, the city in which the home team is located” (Rooney, 1975, p. 58). Consequently, the local fans in this area form the fan region of the home team.

However, depending on the sports market, the size of the country, and the geographical distribution of teams in that league, the geographical proximity of local fans to their favourite team and thus the catchment area of the fan region may vary. As a result, this geographical proximity is measured differently in various studies. Some studies assume that local fans reside directly in the city or local county of their favourite team (Reifurth et al., 2019; Rooney, 1975; Wann & Martin, 2011). Other studies suggest that local fans reside at least in the home state of their favourite team (Mills et al., 2016). Yet



other studies indicate that local fans only have to reside in the home country of their favourite team (Lianopoulos et al., 2020; Maderer & Holtbrügge, 2019).

In contrast, other researchers group the local fan community within a certain radius around the hometown of the favourite team (Collins et al., 2016). This means that depending on how close a sports team's home venue is positioned to a national border, fans from abroad could also be classified as local fans (Mills & Rosentraub, 2014). In addition, local fan regions may overlap depending on the method of geographical measurement (Rooney, 1975). For example, a city measurement would result in an overlap between the fan regions of local fans of the New York Rangers and New York Islanders, while a home state measurement would result in an overlap between the fan regions of local fans of the San Jose Sharks, Los Angeles Kings, and Anaheim Ducks.

#### *2.2.2.2 Research on the Local Fan*

Previous research showed that especially local sports fans benefit from their fandom. It was determined that identifying oneself with a local sports team enhances one's psychological health (Wann, 2006b). Local fans have a decreased risk of developing a psychological disorder and perhaps even physical disorders (Wann et al., 2008). In addition, it was found that identification with a local sports team is related to social well-being. Since the geographic proximity of a sports team is home to a particularly large number of local fans, these fans are salient and easy to identify. Thus, social capital is created for local fans (Wann & Martin, 2011). All studies highlight that only fans of local teams psychologically profit from their fandom because of the

social connections with other local fans and the identification as a group (Wann, 2006b; Wann & Martin, 2011; Wann et al., 2008).

Early research of sports fans and digital media suggests that social media use is low among highly identified local fans. For example, college sports season ticket holders have been found to prefer traditional media over user-generated social media content for informational purposes (Clavio & Walsh, 2014). Likewise, college students who are strongly identified fans of their college team were found by Kwak et al. (2010) to value traditional media more than user-generated online media. Even though past studies indicate that local fans place less value on social media, more recent research such as Reifurth et al. (2019) recommends targeting this fan group via social media. They argue that social media marketing strategies should be developed to increase local fans' identification with their favourite team, as this identification is likely to be influenced by social media. Thus, the importance of social media for local fans has increased over the years. Especially since the COVID-19 pandemic, when no fans were allowed into the sports stadiums and thus not even local fans had direct contact with their favourite teams, social media has proven to be a useful tool for building and maintaining relationships with these sports consumers (Szczepkowski, 2021).

#### *2.2.2.3 Local Fans and the Internationalisation of their Favourite Team*

As larger professional sport organizations attract significant attention abroad and grow internationally (Kerr & Emery, 2011; Pu & James, 2017), they no longer rely as much on local fan support. In particular, social media, live broadcasts, and further developments in communication technology have led

to an large number of fans from various countries supporting foreign sports teams (Maderer & Holtbrügge, 2019; Ratten & Ratten, 2011; Richelieu, 2016). In particular, local fans of sports teams that have sporting success on an international level increasingly have to deal with the internationalisation of professional sports (Kerr & Emery, 2011; Pu & James, 2017). Through the sales of sports merchandise, commercial sponsorships, and international broadcasting rights, the finances generated by fans at live sporting events are no longer the main source of revenue for sports organizations (Buraimo et al., 2007). Saturated local markets and growth opportunities abroad are driving sport organisations to target foreign sports fans (Murphy, 2018; Post & Druker, 2018; Ratten & Ratten, 2011; Richelieu, 2016; Woratschek et al., 2008).

In addition, professional sports teams are increasingly owned and run by foreign investors (Ludvigsen, 2019). Maderer and Holtbrügge (2019) showed that the internationalisation of a club's business activities, owners, players, and coaches has an adverse influence on the loyalty of their local fans. As a result of these internationalisation activities, local fans are facing a fear of losing economic (e.g. ticket availability or attractive kick-off times) and social (e.g. identity enhancement) resources (Behrens & Urich, 2020; Nash, 2000). However, since the local fan base contributes decisively to the atmosphere in the stadium and thus helps to shape the perceived image of the sports team, local fans must not be neglected in the internationalisation process (Cordina et al., 2019; Murphy, 2018).

Previous research has shown that interactions between local fans and sports tourist have a positive impact on the travel experience of these foreign fans.

Especially the vocal and visual performances of the local fans contribute to an authentic experience (Cordina et al., 2019). Some English local fans are so familiar with foreign fans that they view them as locals or simply as a different type of fan of their favourite team (Hognestad, 2003, 2006; Nash, 2000). This can be confirmed by the results from Maderer and Holtbrügge (2019) who demonstrated that the strategic internationalisation of fans – and surprisingly also sponsors – cause no tensions among local fans. It was also found that local fans have a more positive attitude towards satellite fans who engage in prototypical fan behaviour (Behrens & Uhrich, 2020) and would even be interested in hosting these foreign fans, especially to connect with them (Schwarz & Pankowiak, 2020).

However, the more local fans perceive the internationalisation of their team as a process that jeopardizes their social and economic resources, the more the effects of prototypicality diminish (Behrens & Uhrich, 2020). For example, the foreign owner of Cardiff City FC changed the jersey colours and logo of the club to suit the Asian market. This led to strong protests from the local fan base (Maderer et al., 2016; Ornstein & Phillips, 2014). Moreover, local fans of Hull City Association Football Club were also threatened with the loss of social resources when a rebranding to Hull City Tigers was proposed to appeal the lucrative Chinese market (Hayton et al., 2017). Besides the club tradition and sporting performance, it is mainly the mismanagement of the club that leads to negative reactions from local fans against foreign owners (Bi, 2015) which in turn has a negative effect on the loyalty of these fans (Maderer & Holtbrügge, 2019).

Nevertheless, this negative local perception of foreign club ownership is not always accurate. A study about the local Liverpool Football Club fans' perceptions of the club's foreign ownership revealed that local Liverpool fans have become accustomed to the global characteristics of professional football. According to Ludvigsen (2019), a large number of local Liverpool fans have positive perceptions about the foreign ownership and the nationality of the club's owner seems uncomplicated. However, this positive perception of local Liverpool fans has now changed since the announcement of the European Super League (ESL) and the fan protests against this international competition. In response to these protests, teams including Liverpool FC withdrew from the competition and the ESL was cancelled (BBC, 2021; Johnson, 2021).

Even if studies indicate that local fans have become accustomed to the internationalisation of their favourite team (Ludvigsen, 2019), examples such as the protests against the jersey colour change of Cardiff City FC (Ornstein & Phillips, 2014) and against the international ESL competition highlight that not all local fans are in favour of this internationalisation process (BBC, 2021; Johnson, 2021). As local fans contribute to an authentic brand image of the sports club, their fears, and expectations must not be forgotten (Behrens & Urich, 2020; Cordina et al., 2019; Murphy, 2018). Nonetheless, with saturated local markets, increasing digitalisation, globalisation, and the creation of new business models (Buraimo et al., 2007; Murphy, 2018; Post & Druker, 2018; Ratten & Ratten, 2011; Richelieu, 2016), the professional sports team could become less economically dependent on local fans in the future. In contrast, during the COVID-19 pandemic, declining television audiences are

reported due to the unattractiveness of empty stadiums (Hanfeld, 2020, June 19). Thus, it could be argued that local fans are even increasingly important in the internationalisation process of their teams, as they are filling stadiums and contribute to an attractive product (Behrens & Uhrich, 2020; Cordina et al., 2019).

As the internationalisation of professional sports teams will continue to increase in the future due to globalisation and digitalisation, local fans will increasingly have to deal with geographically distant fans. The following subchapter therefore examines these geographically distant sports fans in detail.

### 2.2.3 Systematic Literature Review: The Satellite Fan Segment

In contrast to the local fan, the segment of geographically distant fans has hardly been studied (Cho, Chiu, et al., 2021; Collins et al., 2016; King, 2009). In the literature, geographically distant fans are often referred to as satellite fans (Kerr & Gladden, 2008). In order to obtain an overview of the current state of research of these satellite fans, a six-step systematic literature review consisting of the steps *topic formulation*, *study design*, *sampling*, *data collection*, *data analysis*, and *reporting* was conducted according to Palmatier et al. (2018). This process is briefly described in the following sections.

As the objective of this literature review was to gain an overview of the current state of research of the satellite fan segment, it results aimed to identify the current gaps in the satellite fan segment research. Thus, this literature review has also been instrumental for the identification of the research question of this doctoral thesis. Only peer reviewed studies which investigated the

perspective of or influence on sports fans who reside outside the market of their favourite sports team were included in the literature review.

Prior to conducting the systematic literature review, three studies on satellite fans from Kerr and Gladden (2008), Collins et al. (2016), and Pu and James (2017) were already identified. Based on these three satellite fan key studies and a brainstorming session of sports management researchers, the following 20 keywords were determined: *distant, distance, satellite, displaced, global, international, foreign, nonlocal, local, fan, supporter, follower, club, group, team, fandom, sport, media, digital, social media*. These keywords focus on satellite fans of sports teams rather than those of individual athlete-based sports, as sports teams are in particular representatives of cities or regions (Heere & James, 2007; Jarvie, 2003; Watkins & Cox, 2020) and this study examines the influence of geographical distance. The online library of Northumbria university and the databases Emerald, Taylor & Francis, EBSCO, Human Kinetics, and Google Scholar were systematically searched with the keywords in different combinations and synonyms. Furthermore, backward, and forward citation tracking for additional potential studies was performed on each determined study.

A total of 64 studies were identified. Of the 64 studies identified, 50 studies met the inclusion criteria and were therefore included in the analysis of the literature review. Finally, the included studies were clustered in thematic research categories and their year of publication, countries of origin, countries of origin of investigated satellite fans, investigated sports, applied methods as well as terms and definitions used for satellite fans were compared and

summarised. The results of the literature review are presented in the following subchapters.

#### *2.2.3.1 Thematic Research Categories of the Satellite Fan Segment*

By clustering the different research areas of the 50 identified satellite fan segment studies into thematic categories, 12 different clusters emerge. Since a large amount of these studies examine more than one area, each study could be assigned to several clusters in this classification process. In the table below the individual clusters are listed, briefly described in terms of content, and the number of studies classified in each cluster is shown.



Table 2: Classification of Identified Satellite Fan Studies

Cluster name	Cluster description	Number of studies
Team identification	<ul style="list-style-type: none"> <li>• Psychological connection to distant team</li> <li>• Development of fandom and team identification</li> <li>• Level and influence of team identification</li> </ul>	15 studies
(Digital) media	<ul style="list-style-type: none"> <li>• Dependence on media</li> <li>• Motives for, motivations for, and differences in digital media usage</li> <li>• Impact of digital media on team identification</li> <li>• Exploration of online discussions</li> </ul>	11 studies
Branding	<ul style="list-style-type: none"> <li>• Brand equity</li> <li>• Brand attraction factors</li> <li>• Brand attributes and benefits</li> <li>• Branding across different countries</li> <li>• Sponsors and sponsoring</li> </ul>	9 studies
Geography	<ul style="list-style-type: none"> <li>• Geographic / national / regional / local community identification</li> <li>• Influence of local competition of a sports team</li> <li>• Influence of geographic distance</li> </ul>	8 studies
Consumption behaviour	<ul style="list-style-type: none"> <li>• Purchase behaviour of tickets and merchandise</li> <li>• Overall sports consumption (also of competing local teams) of satellite fans</li> <li>• Media consumption</li> <li>• Segmentation of satellite fans</li> </ul>	8 studies
Loyalty	<ul style="list-style-type: none"> <li>• Fan loyalty</li> <li>• Attitudinal loyalty</li> <li>• Behavioural loyalty</li> </ul>	7 studies
Reasons and motivations	<ul style="list-style-type: none"> <li>• Points of attachment and attraction</li> <li>• Motives for following a distant team</li> </ul>	7 studies
Psychological health	<ul style="list-style-type: none"> <li>• Psychological well-being of satellite fans</li> <li>• Collective and personal self-esteem of satellite fans due to their connection to a distant team</li> </ul>	5 studies
Travel intention	<ul style="list-style-type: none"> <li>• Intention to travel overseas to visit the favourite distant team</li> <li>• Place attachment through a visit to the stadium</li> </ul>	5 studies
Relationship between local and satellite fans	<ul style="list-style-type: none"> <li>• Determinants and conditions that influence local sports fans evaluations of satellite fans of their favourite team</li> </ul>	4 studies
Culture and gender	<ul style="list-style-type: none"> <li>• Female satellite fans</li> <li>• Human race and colonialism</li> <li>• Comparison of the culture of the satellite fan with that of the local fan</li> </ul>	4 studies
Attitudes toward internationalisation	<ul style="list-style-type: none"> <li>• Comparison of attitudes towards internationalisation of the favourite team between satellite and local fans</li> </ul>	1 study

The table shows that although there is only a small number of studies on satellite subjects, these studies focus on a wide range of different research areas. The most investigated cluster is the research area of team identification. A summary of all identified studies is included in appendix 8.1.1. In the

following subchapters, the results of these studies are presented, compared, and related.

### *2.2.3.2 Discussion of the Descriptive Results of the Systematic Literature Review*

When summarizing the publication dates of the identified satellite fan studies, it becomes apparent that research in this segment has slowly built up over the past three decades. The first satellite fan study is from the year 1991. It was not until 2000 that two more satellite fan studies were published. Especially in the years from 2008 onwards, most satellite fan segment studies were published. Before that, there were very few publications on this research area. The overall small amount of satellite fan studies in the literature and its strong increase in recent years, highlights that the satellite fan segment is a young and emerging research field which will become increasingly important in the future. The figure in appendix 8.1.2 gives an overview of the development of the satellite fan segment studies over the years.

In addition, the descriptive analysis of the identified satellite fan studies showed that the largest amount of satellite fan segment studies was published by US universities (37%). This is followed by universities from UK (10%), Australia (8%), Canada (8%), Germany (8%), France (5%), Greece (5%), Singapore (5%), China (3%), Japan (3%), Norway (3%), New Zealand (3%), Brazil (2%), and Israel (2%). The percentages are also compared in the figure in appendix 8.1.3.

The large appearance of publications from North America could be explained by the fact that the internationally superior sports leagues of Major League

Baseball (MLB), NFL, NBA, and NHL are all located on this continent. Due to the superior international sporting level of these leagues, their teams, and athletes attract numerous foreign sports consumers (Del Percio et al., 2020). Therefore, research on the satellite fan segment is particularly interesting for these North American leagues.

However, with an even larger proportion of foreign football fans interested in the Premier League, La Liga, Bundesliga, Serie A, and Ligue 1 (Del Percio et al., 2020), the question arises why there is comparatively little research on the satellite fan segment from universities in the United Kingdom, Germany, Spain, or Italy. This question can be directly refuted by comparing which sports have been investigated in the individual studies. More than half of all studies investigated football satellite fans (52%). In contrast, significantly fewer studies were conducted with satellite fans of basketball (14%), ice hockey (6%), American football (6%), and baseball (6%), the sports of the major North American leagues. In addition, some studies did not target a specific sport, but included satellite fans of multiple sports (16%) in their study. These numbers are summarised in appendix 8.1.4.

Since North America does not have an international superior football league, it is rather striking that more than half of all identified satellite fan studies focus on football, even though most of the studies were conducted in North America. This raises the question of which countries prioritize which sports in their studies. Only the USA, Australia, Canada, Germany, Japan, and New Zealand investigated sports other than football. Especially the USA and Canada concentrated on the sports of the major sports leagues MLB, NFL, NBA, and

NHL, but also included football in their studies. Australia mainly focused on football, but also studied basketball and conducted one study with fans of multiple sports. In contrast, Japan is the only country that has not conducted a study with football satellite fans. Since baseball is very popular in Japan (Hong et al., 2005), it is comprehensible that their study relates to this sport. This is also outlined graphically in the figure in appendix 8.1.5.

Another important aspect of the descriptive analysis is the origin of the satellite fans investigated. It is noticeable that most studies examined Chinese (20%) and US (16%) satellite fans. Another large proportion has included satellite fans from multiple countries (18%) in their study. These large proportions are followed by Canadian (8%), Singaporean (6%), Greek (4%), Japanese (4%), South African (2%), French (2%), New Zealand (2%), Norwegian (2%), Australian (2%), Brazilian (2%), Korean (2%), Taiwanese (2%), Israeli (2%), Malaysian (2%), and Nigerian (2%) satellite fans. One study did not investigate satellite fans of a specific country as it created a conceptual framework (Kerr & Gladden, 2008). An graphically overview of these numbers can be found in appendix 8.1.6.

As China is a particularly attractive market for the internationalisation of sports leagues and teams due to its market potential (Menefee & Casper, 2011; Yu et al., 2019), it is not surprising that most studies focus on Chinese satellite fans. However, there are also two major arguments to take a closer look at American satellite fans. First, as there is no internationally superior football league in the US, there is a large amount of US satellite fans that are interested in major European football leagues (Del Percio et al., 2020; Rookwood &

Millward, 2011). Second, due to the size of the country and increasing movement in the US, there exist numerous fans who reside in geographic distance to their favourite sports team in the US (Collins et al., 2016; Scola et al., 2019). Furthermore, the high proportion of studies that focus on satellite fans from multiple countries is also comprehensible as the delocalization of professional sports teams has led to the formation of international fan nations consisting of fans from various countries (Foster & Hyatt, 2008).

Finally, the descriptive analysis of the systematic literature review concentrated on the applied methods. Most of the studies used quantitative methods (64%). Comparatively fewer studies have used qualitative (26%) or mixed methods (6%). The category “Conceptual” (4%) includes mere literature, essay, or conceptual work. The percentages are summarised in the figure in appendix 8.1.7.

To summarise, the descriptive analysis of the current state of satellite fan research have provided essential insights. It has been shown that publications on satellite fans are increasing, mainly conducted by North American universities and largely quantitative research. There is also a focus on the sport of football and satellite fans from China and the US. After presenting and discussing the descriptive results of the systematic literature review, the next subchapter will concentrate on the different terms and definitions used to describe the satellite fan.

#### *2.2.3.3 Terms Used for Satellite Fans*

It is particularly noticeable that different terms are used for the satellite fan within the various studies. For example, terms such as out-of-market fan (Mills

et al., 2016; Scola et al., 2019), international fan (Bodet et al., 2020; Cho, Chiu, et al., 2021; Chung et al., 2019; Hong et al., 2005; Menefee & Casper, 2011; Parganas et al., 2017; Yu, 2010), or long-distance fan (Baker, 2021; Hognestad, 2006) were used to describe the satellite fan. In contrast, other studies have not used an explicit term for the satellite fan but used descriptions of their investigated population, such as Chinese NBA fan (Li et al., 2017). This variation in the use of terms for satellite fans is further reinforced by the inhomogeneous use of a single terms within individual studies.

However, the literature review also showed that there are already three explicit definitions for sports fans who do not reside in geographic proximity to their favourite sports team. The first definition of this fan group was established by Anthony Kerr and James M. Gladden in 2008. Because of the technological dependence of satellite television, they have called geographically distant sports fans satellite fans. According to Kerr and Gladden (2008) “these fans maintain an emotional bond with a foreign-based team, despite the absence of a shared geography. From the comfort of their living rooms, these fans can marvel their heroes’ athletic exploits content in the knowledge that they are part of a community of fans worldwide” (p. 59). Studies on satellite fans conducted before this first definition from 2008 described their sample, used different terms for satellite fans in their publications, but did not create a single definitional term (see appendix 8.1.1).

In 2016, a definition for a subgroup of the satellite fans was established by Dorothy R. Collins and her colleagues. In their study they investigated “people who moved away from the city they grew up in yet still support the team

associated with that city” (Collins et al., 2016, p. 656). They called this subgroup displaced fan. The displaced fan has already been mentioned by Kerr and Gladden (2008) as a part of the satellite fan segment. In contrast to the definition from Collins et al. (2016), Kerr and Gladden (2008) stated that the displaced fan just have “a previous connection with a team but now reside outside that organisation’s geographic market” (p. 61). Also Pu and James (2017) note the displaced fan as a satellite fan subgroup and define them “as ones who previously lived in proximity to a favourite team, but subsequently reside outside that team’s geographic market” (p. 420). However, it is impossible that the displaced fan is the only component of the satellite fan segment, as numerous professional sports teams have more satellite fans than local fans (Kerr & Gladden, 2008).

To further explain the large number of the satellite fan segment, a definition for an additional subgroup was established by Haozhou Pu and Jeffery James in 2017. They created the term distant fan and defined these fans as “those who follow a favourite team to which they are geographically distant and have not previously resided near or even been in physical proximity to their favourite team” (Pu & James, 2017, p. 421). This definition is not significantly different from the satellite fan definition proposed by Kerr and Gladden (2008), however, it emphasizes as an additional criterion that the fan must not have been in physical proximity to the sports team. Since this criterion excludes all satellite fans who have ever seen their favourite team live, the distant fan forms a subgroup of the satellite fan.

Although definitions of the satellite fan and various subgroups are already available in the literature, they are not used consistently in satellite fan studies. The most established definition is the one from Kerr and Gladden (2008). In the 50 studies analysed 13 papers are referring to their satellite fan definition (Bodet et al., 2020; Burton et al., 2019; Chanavat & Bodet, 2009; Cho, Chiu, et al., 2021; Kerr & Emery, 2011, 2016; Li et al., 2019; Maderer et al., 2016; Menefee & Casper, 2011; Parganas et al., 2017; Pu & James, 2017; Reifurth et al., 2019; Tsordia et al., 2021). Other papers use the term satellite fan or satellite supporter, but do not cite the definition from Kerr and Gladden (2008) (e.g. Bodet & Chanavat, 2010; Maderer & Holtbrügge, 2019), use other related papers from Kerr as a source for their satellite fan definition (e.g. Behrens & Uhrich, 2020; Scola et al., 2019; Uhrich et al., 2020), or use a mixture of different sources, including Kerr and Gladden, for the definition (e.g. Cho, Lee, et al., 2021).

In contrast, the displaced fan definition from Collins et al. (2016) is only mentioned twice (Cho, Chiu, et al., 2021; Scola et al., 2019). However, Cho, Chiu, et al. (2021) refers to the definition from Collins et al. (2016), but only to the fact that the displaced fan must have moved away from his former hometown and not have grown up there. Reference to the displaced fan definition from Pu and James (2017) has its only appearance in the already designated study from Cho, Chiu, et al. (2021). The displaced fan definition by Kerr and Gladden (2008) was also only quoted once (Reifurth et al., 2019).

Furthermore, the distant fan definition from Pu and James (2017) is only referred by two of the 50 studies (Lianopoulos et al., 2020; Miranda et al.,



2021). However, in one of these studies there is once again a definitional discrepancy. While Pu and James (2017) state that distant fans have never lived close to their favourite team and were never in physical proximity to it, Lianopoulos et al. (2020) declare that their favourite team is foreign and they have no link to its nationality.

The remaining studies either do not contain a definition of their investigated geographic distant sports fan group or use their own non-established definitions, which were not cited in the other studies reviewed. This inhomogeneity also leads to inconsistencies in the individual definitions. Branscombe and Wann (1991), Wann et al. (2011), and Sveinson and Hoerber (2016) for example, use the term displaced fan for their definition which is almost similar to the definition of the satellite fan from Kerr and Gladden (2008). However, the term displaced fan is defined and differentiated from the satellite fan (Collins et al., 2016; Kerr & Gladden, 2008; Pu & James, 2017).

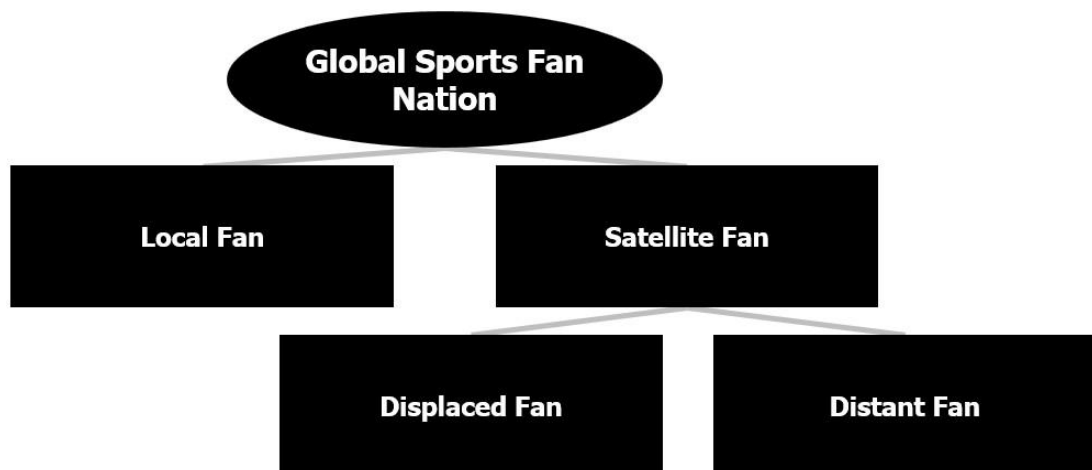
The lack of use of established and uniform definitions suggests a need for a clearer conceptualization. Also Pu and James (2017) note an interchangeable use of both satellite fan terms displaced fan and distant fan and warn that this ignores different types of fan experiences. Therefore, the following subchapter relates the most established definitions of satellite fans in a framework. This is used as the basis of definition for the populations examined in this study.

#### 2.2.4 The *Global Sports Fan Nation* and its Different Fan Types

The results of the systematic literature review demonstrate that research on the satellite fan segment is a young and emerging field and that there is a strong inconsistency within definitions. To create a systematic approach to the

various definitions of satellite fans and to distinguish the different subcategories, the definitions from the literature of the satellite fan, displaced fan, distant fan, and local fan are combined in the following figure (Collins et al., 2016; Kerr & Gladden, 2008; Pu & James, 2017). In this framework, the local fan definition of Pu and James (2017) rather than Hunt et al. (1999) will be used (see definitions in subchapter 2.2.2.1), as it focuses only on geographical conditions and does not attribute additional behaviours to the local fan, as Hunt et al. does.

*Figure 2: The Global Sports Fan Nation Framework (Version 1) (adapted from Collins et al., 2016; Foster & Hyatt, 2008; Kerr & Gladden, 2008; Pu & James, 2017)*



The figure differentiates the sports fan types by geographic constraints and illustrates that fan nations of today's professional sports organizations consists of both local and satellite fans (Collins et al., 2016; Kerr & Gladden, 2008; Maderer & Holtbrügge, 2019; Pu & James, 2017; Ratten & Ratten, 2011; Richelieu, 2016). In addition, the figure also shows that the term satellite fan can be used as an umbrella term for other subgroups of satellite fans, such as the displaced and distant fan. While the term satellite fan can describe any type of foreign sports fan, the terms displaced fan and distant fan define subcategories of satellite fans. Displaced fans are former local fans who, for

example, now live abroad (Collins et al., 2016). In contrast, distant fans are foreign fans who have never been in physical proximity to their favourite sports team (Pu & James, 2017). Since there are definitional differences between the displaced and distant fan, these satellite fan subcategories must be distinguished from each other.

The local and satellite fans together form the *Global Sports Fan Nation* (see Figure 2), which represents the total breadth of fans of a sports organization on a global scale. It was found that sports fans appreciate it when a multitude of other people around the world support their favourite team and thus become part of this *Global Sports Fan Nation* (Kolbe & James, 2000). The *Global Sports Fan Nation* is a newly developed framework that provides uniform definitions for future satellite fan research and sport consumer segmentation. While previous segmentations of sports fans are mainly consider demographic, psychographic, behavioural, or psychological characteristics (Funk & James, 2001; Hunt et al., 1999; Samra & Wos, 2014; Stewart et al., 2003; Tapp & Clowes, 2002), the *Global Sports Fan Nation* framework delineates different types of sports fans based on geographic constraints, such as current place of residence, geographical distance from their favourite sports team, and previous physical contact with that team. The fan type definitions of the framework are based on partially established definitions from the satellite fan literature (Collins et al., 2016; Kerr & Gladden, 2008; Pu & James, 2017).

Foster and Hyatt (2008) argued that today's major professional sports teams' fan base consists of both local and geographically distant fans. Since the members of this fan base will never know the majority of their fellow fans, but

are always connected in their minds by their mutual fandom, this international fan base is called fan nation (Anderson, 2006; Foster & Hyatt, 2008). MacIntosh et al. (2017) define on the basis of Anderson (2006) and Foster and Hyatt (2008) a fan nation as a “non-geographically bound community where members share an imagined cohesiveness with other, anonymous members” (p. 317). They continue that the majority of these fan nation members may not have the chance to meet personally and interact with each other, but “in the minds of each [member] lives the image of their communion” (MacIntosh et al., 2017, p. 317, as cited in B. Anderson, 2006, p. 6).

Foster and Hyatt (2008) clearly distinguish in their definitional approach the fan nation from other group formations discussed in the literature as sport communities, such as neo-tribes (Crawford, 2004; Maffesoli, 1995), lifestyle enclaves (Bellah et al., 1996), and brand communities (Muniz & O'Guinn, 2001). They emphasise that tribes and lifestyle enclaves only describe collective associations of small groups of individuals, which does not apply to large sports fan communities due to their small size (Foster & Hyatt, 2008). As sport organizations are often referred to as brands (Richelieu, 2016; Richelieu et al., 2008), there are indeed some similarities between fan nations and brand communities, such as the non-geographical bound community which is based on social relationships between brand admirers as well as traditions, rituals, a shared consciousness, and a sense of moral responsibility (Foster & Hyatt, 2008; Muniz & O'Guinn, 2001). Thus, several studies describe the fan base of professional sports organizations as brand communities (e.g. Grant et al., 2011; Katz & Heere, 2013, 2015; Rufer & Rufer, 2019; Wear et al., 2018). In particular social media platforms are said to have a strong influence on the

emergence of brand communities of sports fans (Rufer & Rufer, 2019). Fans of sports organisations can stay connected via these virtual spaces (Mastromartino et al., 2020), which is why these online sports fan communities are also labelled as virtual brand communities in the literature (Alonso Dos Santos et al., 2018; Zanini et al., 2019).

However, there are still major differences between fan nations and brand communities. Members of brand communities use the brand only to a certain extent for their personal identity, which leads to relatively strong, but rarely extreme, commitment among members of these communities. In addition, brand communities are purely commercial in nature (Muniz & O'Guinn, 2001). By contrast, sports fans are often highly committed and loyal members (Abosag et al., 2012), who sometimes display extreme dysfunctional behaviour (Hunt et al., 1999) and have a strong dedication to their fan nation (Foster & Hyatt, 2008). Even though many sports organisations also have less loyal fans, such as temporary spectators (Agas et al., 2012; Hunt et al., 1999), Foster and Hyatt (2008) emphasize that it is not the goal of a sports manager to build a fan nation with these members. Rather, this fan nation should consist of committed local and geographically distant fans. Therefore, the fan nation must be clearly distinguished from the brand community. The *Global Sports Fan Nation* presented in this subchapter is thus not oriented towards communities such as neo-tribes (Crawford, 2004; Maffesoli, 1995), lifestyle enclaves (Bellah et al., 1996), or brand communities (Muniz & O'Guinn, 2001), but follows the fan nation definition by Foster and Hyatt (2008).

Especially digital media provides local and satellite fans with the opportunity to connect with each other, constantly stay in contact with their favourite sports organization or athlete (Collins et al., 2016; Kerr & Emery, 2011; MacIntosh et al., 2017; Parganas et al., 2017) and thus is a driver to build a *Global Sports Fan Nation* of committed fans. Due to the large number of members and geographical distance between them, most of these fans will never meet in person and therefore have an anonymous relationship with each other (Anderson, 2006; Foster & Hyatt, 2008; MacIntosh et al., 2017). However, these fans know that they are part of a worldwide fan nation, share an imaginary cohesion and have their communion in their mind (Anderson, 2006; Farred, 2002; Foster & Hyatt, 2008). This is in line with Ingham and McDonald (2003) who also mentioned that fans do not have to live in the same geographic region to form a shared sense of belonging. The *Global Sports Fan Nation* framework illustrated in Figure 2 is not yet completed. Throughout the next subchapters the framework will be further adjusted based on additional findings from the literature review.

In the following subchapters, the different fan types of the *Global Sports Fan Nation* will be presented. As the local fan has already been discussed in subchapter 2.2.2, this fan type will not be presented again. Therefore, only the satellite, distant, and displaced fan will be introduced based on the literature in the following subsections. Subsequently, in an additional subchapter, a new and emerging satellite fan type called detached fan will be introduced, defined, and added to the *Global Sports Fan Nation* framework.

### 2.2.5 Satellite Fans

Within the following subchapters the satellite fan is introduced. This introduction starts with the influence of media, as it is mainly through coverage on television and in digital media that provides satellite fandom a foundation. Through these media, numerous satellite fans have received their team identification, but have various reasons for supporting their favourite team. After the subchapter on team identification and reasons for supporting a geographically distant team, the impact of a local team on satellite fandom is discussed. The introduction of the satellite fan is concluded by presenting research on their fan loyalty.

#### *2.2.5.1 Introduction of Satellite Fans and the Importance of Media*

As already presented in subchapter 2.2.3.3, Kerr and Gladden (2008) defined a satellite fan as a fan that maintains “an emotional bond with a foreign-based team” (p. 59). This emotional bond to a geographically distant sports teams is by no means a new phenomenon. In 2007, even 70 years after emigrating from Germany, former US Secretary of State, presidential advisor, and Nobel Peace Prize laureate Henry Kissinger emphasised that he still checks the scores of his German football hometown team Greuther Fürth every weekend (Roose, 2010). This case underlines that psychological distance, i.e. geographical identity, and not physical distance, influences the team identification of sports fans (Reifurth et al., 2019).

Another example that shows that satellite fandom has existed for some time comes from Farred (2002). In his article “Long Distance Love: Growing Up a Liverpool Football Club Fan”, he describes how he developed a deep and

lasting bond to Liverpool FC as a young boy and later young adult in apartheid South Africa in the 1970s and 1980s. It was demonstrated that fandom can overcome geographic distance and a lack of technology only through imagination (Farred, 2002). This means that Grant Farred became a geographically distant “anonymous member” (Foster & Hyatt, 2008, p. 269) of Liverpool FC’s *Global Sports Fan Nation* despite the absence of live broadcasting and the internet (Farred, 2002) and, more importantly, through an “imagined cohesiveness” (Foster & Hyatt, 2008, p. 269). This is particularly impressive in contrast to Henry Kissinger’s example, as Grant Farred had no physical contact with Liverpool FC when he developed his fandom.

In former times without internet or smartphone, Henry Kissinger had the German embassy send him the scores of Greuther Fürth every Monday (Schramm, 2012) and Grant Farred had to read the local South African newspapers to check the scores of Liverpool FC (Farred, 2002). Nowadays, this lack of technology has been remedied and satellite fans no longer have to settle for delayed scores of their favourite team. Due to the development of new technologies such as live broadcasting or social media in recent decades, fans are able to continuously engage with their favourite team regardless of their geographical location (Collins et al., 2016; Kerr & Emery, 2011; Kerr & Gladden, 2008; Maderer et al., 2016; Pu & James, 2017). To understand these media reports from abroad or to communicate with other fans in a foreign language, satellite fans usually have a good education (Ben-Porat, 2000).

Already more than 40 years ago, Doyle et al. (1980) determined an increased dependence of sport fans on mass media such as radio or television.



Therefore, they have proposed to adapt the geographic based fan region consumption model from Rooney (1975) and rename it “media fan region” (Doyle et al., 1980, p. 56). Although the media fan region has never been conceptualised, Kerr and Gladden (2008) pointed out that satellite fans would form an important part of this model due to their dependence on media. This media dependence of sports fans can be made particularly clear with a result from a Nigerian football market study. According to this study, the Nigerian national media portrays Europe as the centre of modern football and Nigeria as secondary. Consequently, the majority of Nigerian football fans neglect their local teams and mainly support geographically distant Premier League teams (Onwumechili, 2009).

As the development of technology and media is changing sports fandom and sports fans become increasingly dependent on it (Doyle et al., 1980; Kerr & Gladden, 2008), several studies have examined digital media and its influence on satellite sports fans. Li et al. (2017) found that Chinese satellite fans of the NBA had a higher dependence on using social media in their daily life compared to US NBA fans. This greater dependency of satellite fans can be justified by the fact that social media allows geographically distant fans to engage and become part of the fan nation (Burton et al., 2019). In this context, Burton et al. (2019) discovered that digital media is particularly important for young satellite fans who do not reside in the country of the national football team they support when it comes to fan engagement and ethnocultural community building. It is therefore not surprising that satellite and local fans have different motivations to use digital media to follow their sports team.

According to Li et al. (2019), Chinese NBA fans are more motivated to use social media to get information, entertain themselves, gain technical knowledge, pass the time, and escape from their daily life, whereas US NBA fans show higher motivations to express their support for their favourite team. Since the study by Li et al. (2019) had to compare two different social media platforms (Chinese NBA fans on Weibo and US NBA fans on Twitter) due to Chinese restrictions, this may affect generalisation. However, it is the only study that investigates the different motivations for social media use between satellite and local fans. A research gap is therefore emerging in this particular area.

In addition, there is also only one study that examines the effects of social media on satellite fans. Parganas et al. (2017) compared the effects of social media interactions on brand associations of professional sports teams between Greece and English Premier league fans. They found that the level of perceived brand benefits on Facebook are very similar for satellite and local fans, while there are significant resonance differences on Twitter. These different effects of social media platforms further underline the generalization issues of the study by Li et al. (2019).

Although there appear to be some differences in the motivations for social media use and the impact of social media between satellite and local fans, the cultures of these sports fans are becoming increasingly similar due to the internet. New media significantly enhances the access to distant teams and contact to other fans. As a result, Hognestad (2006) discovered that Norwegian satellite fans of the Premier League adopted similar moralities as

local fans and participate in the same football discourses. Also Rookwood and Millward (2011) found that there are only small differences in cultural reading about a specific Liverpool player between Texan and local Liverpool FC fans. They concluded that the cultures of committed satellite and local fans are closer than expected and that this closeness could be driven by digital media. Furthermore, Nash (2000) argues that the fandom of Scandinavian Liverpool FC fans is becoming more mature and is connected to larger contexts, such as fan traditions or symbolic practices, than just their favourite football club. But even though the fan cultures of satellite and local fans are becoming increasingly aligned, satellite fans seem to be aware that they are still different to their local counterparts (Hognestad, 2006). In addition, this cultural alignment could be compromised by conflicting values and messages transmitted to satellite fans via the internet (Nash, 2000).

However, even if extant literature indicates an alignment of the cultures of satellite and local fans, there are still significant differences between satellite fans from different cultures. For instance, German satellite fans respond more favourably to merely foreign brand positioning in social media, whereas Chinese fans prefer local adaptations of the US brands to Chinese customs (Behrens et al., 2022).

As the internet allows satellite fans to stay connected to their favourite sports teams and fellow fans regardless of their location (Collins et al., 2016; Kerr & Emery, 2011; Kerr & Gladden, 2008; Maderer et al., 2016; Pu & James, 2017) the internet gains more importance in the daily lives of these geographically distant fans. In this “virtual ‘third place’” (Kerr & Emery, 2016, p. 521) outside

of work and home, satellite fans meet regularly and interact with other fans and their favourite sports team. Baker (2021) argued that satellite fans create an imaginary and virtual home for their favourite geographically distant team through the use of television and digital media, and that consequently geographies of home can be felt in a variety of stretched and dispersed spaces through sports fandom. This importance of digital media in turn explains again the greater dependence of satellite fans on it (Li et al., 2017). In general, the connection between satellite fans and their favourite team is largely maintained through the cyberspace (Kerr & Emery, 2016).

While this subchapter demonstrated the importance of digital media for satellite fans to stay in contact with their “oversea sweetheart” (Ben-Porat, 2000, p. 346), the following subchapter concentrates on satellite fans and their reasons for supporting a geographically distant team as well as their team identification.

#### *2.2.5.2 Satellite Fans’ Team Identification and their Reasons for Supporting a Geographically Distant Sports Team*

Three decades ago, Branscombe and Wann (1991) found that in contrast to local fans team identification among geographically distant fans increases when their favourite team is more successful. However, it was many years later before research was conducted into the various factors that drives sports fans to take an interest in teams from far away. Hyatt and Andrijew (2008) were one of the first to raise the question why some sports fans reject to support their local team and instead are following a geographically distant team. They interviewed 20 Canadian ice hockey fans of non-local NHL teams and

identified six reasons to support a distant team. According to their study a specific player, the sport team's colour/uniform, the sport team's logo, to meet the sport team's players in person, to see the sport team play in person, and the sport team's status as an underdog are significant attraction factors for satellite fans.

In addition, Hong et al. (2005) found that overall interest in baseball, interest in players, and quality of game are the three primary motivations for Japanese satellite fans interest in MLB. Furthermore, they found that emotional attachment as well as attitudinal and behavioural loyalty of Japanese MLB fans are predicted by these three primary motives. Similar results were obtained by Kerr and Emery (2011), who determined media coverage, style of play, presence of a particular player, team success, history of success, participation in the highest division, and stadium as the primary antecedents of the initial identification of Liverpool FC satellite fans. The presence of star players were also identified by Bodet and Chanavat (2010) as an essential reason for Chinese Premier League fans to support a specific club. In this study, several of these participants stated that they would switch their favourite club in the event of a player transfer, and even to the rival of their current favourite team. It is striking that satellite fans often mention attributes related to the team as the reason for their distant fandom, while local fans would mostly refer to their attachment to the city and their relationship with socialisation agents as reasons (Hyatt & Andrijiv, 2008; Watkins & Cox, 2020).

Bodet et al. (2020) compared the importance of organization-induced (e.g. presence of star players), experience-induced (e.g. previous attendance), and

market- and environment-induced (e.g. media coverage) sport brand attraction factors among Chinese Premier League fans. They found that organization-induced brand attraction factors were the most significant for these satellite fans. Furthermore, they discovered that the importance of brand attraction factors is influenced by fan loyalty, team identification, and demographic attributes such as gender, age, or education.

Andrijw and Hyatt (2009) found that satellite fans achieve feelings of belongingness and uniqueness from their distant team identification and thus maintained their team allegiances over time. These feeling of uniqueness of satellite fans were also identified by Sveinson and Hoeber (2016). They investigated the fandom of female satellite fans and discovered that they feel empowered when they can demonstrate authenticity and legitimacy of their unique distant fandom. Thus, it can be concluded that the feeling of being different from local sports fans in one's area of residence is an additional reason for supporting a distant team.

A study about national football team supporters that do not reside in the country of their favourite national team determined that it is an important element of national identification and socio-cultural place for these fans to support their geographically distant home and ancestral national team (Burton et al., 2019). Besides identification with the 'motherland', satellite fandom can also be influenced by family and friends (Kerr, 2009; Kerr & Emery, 2011). This means that not only sporting reasons or the differentiation from local sports fans, but also cultural origin, national identification, and social connections can

be reasons to support and develop a team identification to a geographically distant team.

Concerning the team identification, Reifurth et al. (2019) investigated fans of sport teams from the NFL, MLB, NBA, NHL, and Major League Soccer (MLS). They found that an increased geographic distance to the distant team was not negatively related to team identification. Therefore, some satellite fans might identify even more strongly with their favourite team than local fans of that team. However, the association to that sport organization could be different among satellite and local fans. For example, it was discovered that Chinese satellite fans of the NBA have higher associations with the sport basketball, the NBA players, and the league than US fans. In contrast, the US fans had a higher attachment to their favourite NBA team (Li et al., 2017). While there seems to be differences in the team identification between satellite and local fans, it might be more similar between satellite fans. Katz et al. (2020) determined that satellite fans, who are all members of the same supporter club, identify in similar ways with their favourite team and supporter club, but the effects of the supporter club and team identification were different.

Satellite fans that are members of foreign supporter clubs can use the social gatherings with other like-minded club members to maintain their team identification (Scola et al., 2019). But not all satellite fans have access to such foreign supporter clubs, and none of these fans can be physically close to their favourite team regularly at live games. Thus, it is not surprising that the media was mentioned by satellite fans as the most important factor to maintain their identification with their favourite club. In addition, the presence of star players

and the style of play were also found as important team identification maintenance factors of Scandinavian Liverpool FC fans (Kerr & Emery, 2016). Satellite fans' team identification in turn affects the perceived match between sponsors and their sports team (Tsordia et al., 2021), which is particularly well perceived by satellite fans when nostalgia is promoted (Cho, Lee, et al., 2021).

Since satellite fans' team identification is highly dependent on the media and in most cases not characterised by regular physical contact with their favourite team, these fans may become increasingly interested in local teams of the same sport as their favourite distant team. The following subchapter therefore presents studies that examine the influence of local teams on satellite fans.

#### *2.2.5.3 Satellite Fans and the Presence of a Local Team*

While the previous subchapter discussed, among other points, that satellite fans want to differentiate themselves from the predominant fan base of their local team (Andrijiv & Hyatt, 2009; Sveinson & Hoeber, 2016), this local team could also become a threat to the satellite fandom if the satellite fan yearns to attend live games. McDonald et al. (2010) found that interest in foreign football leagues and clubs was an important precondition for interest in the Australian National Football League, which was newly formed at the time of their study. The satellite fans in this study were more likely to be primary consumers of the new local league and had more pronounced stadium attendance and season ticket renewals than fans of an already existing local league or supporters who were not previously interested in the sport. Thus, "multiple team support" (McDonald et al., 2010, p. 69) is not unusual for satellite fans.



Menefee and Casper (2011) also researched multiple team support among satellite fans. They investigated Chinese basketball fans that support teams of the Chinese Basketball Association (CBA) and the NBA in particular. Even though these Chinese basketball fans attend CBA live games, they showed a significantly higher team identification as well as merchandise and television consumption for their favourite NBA team in comparison to their favourite CBA team. These results are confirmed by Reifurth et al. (2019), which were able to demonstrate that the presence of a local team in the same sport or in a different sport does not decrease the team identification of satellite fans to their favourite geographically distant team. Furthermore, Chanavat and Bodet (2009) found that it is crucial for French football fans that they perceive a fit between the values and images of their favourite local and favourite foreign football club. They argue that this fit is a key factor in creating strong brand equity of professional sports teams among French satellite fans.

The study results of Menefee and Casper (2011), Reifurth et al. (2019), and Chanavat and Bodet (2009) underpin the suggestion that sport fans will increasingly support a local side and in addition one of the world's best teams of the same sport (Frost, 2004; Kerr & Emery, 2011). Research has already shown that sports fans often support several favourite teams (Grieve et al., 2009; Maderer et al., 2016). In the case of Chinese basketball fans, however, these simultaneously local and satellite fans are more loyal to their favourite team of the world's best basketball league than to their local favourite team (Menefee & Casper, 2011). Studies on Premier League fans from Israel and Nigeria have also confirmed that these satellite fans are much more committed to the foreign clubs than to their local ones (Ben-Porat, 2000; Onwumechili,

2009). It can therefore be stated that local sports teams are not necessarily a threat to satellite fandom but are often taken as an extension of fandom and interest in the sport. To discuss this further, the following chapter takes a closer look at the loyalty of satellite fans.

#### *2.2.5.4 Loyalty of Satellite Fans*

In contrast to local fans, who have often supported their favourite team for generations, satellite fans have usually only recently been attracted to a specific team – for example via digital media – and are therefore accused of not being as loyal (Bridgewater, 2010; Maderer & Holtbrügge, 2019).

However, not only researcher but also sports managers are interested in the loyalty of satellite fans to their favourite team. Satellite fans can be located anywhere in the world, often form a large proportion of a professional team's total fan nation and can even be larger in number than the local fans of the team (Kerr & Gladden, 2008; Maderer et al., 2016). Consequently, these geographically distant fans are becoming an increasingly relevant source of revenue for professional teams, especially by considering the sales opportunities to potential future satellite fans (Foster & Hyatt, 2008). Uhrich et al. (2020) even segment satellite fans into high value satellite fans, mid value satellite supporters, and low value satellite casuals based on financial (i.e. transactional value) and non-financial values (i.e. influencer value and relationship value). However, due to that geographical distance, these fans only have the possibility of indirect sports consumption through the purchase of fan merchandise and subscriptions to media content (Kerr & Gladden, 2008).

Kerr and Emery (2011) state that satellite fans are actively searching for ways to support their team and connect with other fans, and therefore show higher levels of loyalty than was initially assumed about them. In general, fan loyalty consists of attitudinal and behavioural loyalty (Bauer et al., 2005; Bauer et al., 2008). While attitudinal loyalty describes the inner connection of fans to their favourite team, behavioural loyalty considers the purchasing and consumption behaviour of the fans to their favourite team (Maderer & Holtbrügge, 2019; Yun et al., 2020). Attitudinal and behavioural loyalty will be introduced in more detail in chapter 3.4.1. This subchapter discusses the very few studies that have investigated the fan loyalty of satellite fans.

As numerous satellite fans follow a geographically distant team, because they like a specific player of that team (Hong et al., 2005; Hyatt & Andrijiw, 2008), this player identification can influence a satellite fans' behavioural loyalty. It was found that player identification of satellite fans has a positive influence on their intention to purchase merchandise or media contents of that player (Chung et al., 2019). Furthermore, Maderer and Holtbrügge (2019) compared the influence of the attitudes toward internationalisation on fan loyalty between satellite and local fans. They were able to prove that the sports fan's place of residence influences their loyalty. Both attitudinal and behavioural loyalty were less pronounced among satellite fans than among local fans. In addition, they found that the fans' attitudes towards the strategic internationalisation of the teams' fan nation had a stronger impact on the loyalty of satellite fans than local fans. Since foreign fans in particular welcome internationalisation measures such as playing abroad to increase the teams' fan nation, this result is very comprehensible.

Moreover, Maderer et al. (2016) investigated the influence of sports brand associations on fan loyalty of fans in emerging (e.g. China) and developed (e.g. England) football markets. Their sample included a large number of satellite fans and showed that satellite fans are especially located in emerging markets. 52% of all participating fans residing in emerging markets were satellite fans. In contrast, only 11% of participants living in developed markets were classified as satellite fans. They found that geographically distant fans in emerging markets require lower attitudinal loyalty than fans in developed countries to make purchasing decisions in favour of their club or otherwise behave loyally. A greater willingness to spend money among geographically distant sports fans than among local sports fans was also identified by Mills et al. (2016). They discovered that fans who live in a different state than the NBA home team whose game they attend spend more money on tickets than local fans. In addition, they identified differences on the local team's likelihood of winning, with satellite fans willing to spend more money on games where the home team has a higher chance of winning.

This subchapter demonstrated that satellite fans can also be loyal consumers despite their great geographical distance to their favourite team. However, this geographical distance and isolation from other fans could have an influence on the psychological health and well-being of the satellite fans (Wann, 2006b; Wann et al., 2004; Wann et al., 2011). Thus, various studies have been carried out to investigate the well-being of satellite fans. It was found that identification with a geographically distant team does only generate psychological health if satellite fans are in company of other fans (Wann, 2006b; Wann & Martin, 2011). Therefore, one way for satellite fans to get these positive effects of

social connections with other like-minded fans is to join a fan club (Katz et al., 2020; Scola et al., 2019).

As already stated, the term satellite fan serves as an umbrella term that contains other satellite fan subgroups (see Figure 2). Thus, the literature presented in this subchapter also apply to the distant fan (Pu & James, 2017), displaced fan (Collins et al., 2016), and detached fan. In the following subchapters, these satellite fan subgroups are discussed.

#### 2.2.6 Distant Fans

Before the term distant fan was precisely defined by Pu and James (2017), it had already been used in various satellite fan studies and was interpreted differently (Andrijiv & Hyatt, 2009; Foster & Hyatt, 2008; Nash, 2000). Even after the definition was published in 2017, the term distant fan was used in a sentence of a study as an equivalent to the term satellite fan (Bodet et al., 2020).

As already stated in chapter 2.2.3.3, distant fans are “those who follow a favourite team to which they are geographically distant and have not previously resided near or even been in physical proximity to their favourite team” (Pu & James, 2017, p. 421). With this definition, Pu and James (2017) were the first to differentiate the distant fan from the displaced fan and have presented the distant fan as a unique satellite sports fan type. Also Lianopoulos et al. (2020) defined distant fans based on the definition from Pu and James (2017) “as individuals who support a sport team which is located outside their home country and who have no connection with its nationality” (p. 2). However, even though the definition is based on Pu and James (2017)

there are still major differences between fans that have never resided close to their favourite team or have been in physical proximity to it and fans that cheer for foreign teams with whose nationality they are not associated. Because the distant fan definition from Pu and James (2017) describes the geographical relationship of the fan to his favourite team in more detail (i.e. they have not even been in physical proximity), this study follows their definition.

As distant fans were never in physical contact to their favourite sports team and often live at a great distance, they are highly dependent on different forms of media as a means of connection. Thus, Pu and James (2017) described the media as a highly important early socialization agent for the establishment of a first generation of distant fans. This is in line with Phua (2010), who predicts that the importance of the internet as a major socialising agent will continue to grow in the future and will also replace the traditional print and broadcast media. Also Lock et al. (2012) findings supports this. They found that searching for news and media about a specific sports team can act as a socialising agent for sports fans.

Although the family is additionally discussed as a notable socialisation agent for sports fans in the literature, it can only serve as an essential factor when there exists already a large distant fan base. Therefore, with an increasing number of distant fans passing on their fandom to their children (i.e. the second generation of distant fans) the family will only become an increasingly important factor in the future (Pu & James, 2017).

Nevertheless, as the distant fan is a relatively new phenomenon and the first generation obtained their fandom mainly through mass media, this population

was already studied in relation to media. Chinese NBA fans with different levels of psychological attachment to their favourite team were found to differ significantly in their media consumption, with highly attached fans spending more time to consume media. In addition, different motivations for supporting a distant team at different psychological attachment levels were found (Pu & James, 2017).

Due to the recent development of large fanbases of distant fans as well as their newly created definition and differentiation from satellite and displaced fans (Pu & James, 2017), there is only very little distant fan research in the literature. Miranda et al. (2021) investigated Brazilian distant fans of the NBA and found that both vicarious achievement (i.e. sense of accomplishment felt through the success of a sports team) and social interaction are motives that positively influence behavioural intentions related to the NBA. Furthermore, in the systematic literature review, two additional studies were identified that could be categorised as distant fan studies in retrospect. Yang et al. (2016) investigated online discussions of Chinese football fans of the World Cup 2014. They differentiated between comments of Chinese fans and non-fans and found that fans have rather commented about the World Cup in a positive manner on social media in comparison to non-fans. In addition, it was found that Chinese fans' online discussions mainly focused on athletes, teams, and news about the World Cup. Although China did not take part in the World Cup 2014 and the Chinese fans therefore had to be classified as an out-group, they have established themselves as an in-group of this World Cup through the creation of their Chinese World Cup fan online community.

The second study that could be classified as a distant fan study in retrospect comes from Menefee and Casper (2011) and was already briefly presented in chapter 2.2.5.3. They explored Chinese basketball fans that follow both the CBA and NBA. It has been demonstrated that these Chinese Basketball fans have an overall higher team identification and behavioural involvement to their favourite NBA team compared to their favourite CBA team. These results are particularly impressive because the participants were all Chinese CBA game spectators. Moreover, these distant fans have in most cases no connection with external groups (e.g. nation, state, or city) that play a significant role in strengthening their identification with their favourite NBA team, but they do have these connections to their favourite CBA team as local fans (Heere et al., 2011; Heere & James, 2007; Menefee & Casper, 2011; Pu & James, 2017).

Nevertheless, these fans identify more with their distant fan team than with their local fan team. Furthermore, this study confirms the earlier assumption of the Chief Executive Officer at Real Madrid José Ángel Sánchez that in the future fans will follow a globally known sports team and in addition a local team (Frost, 2004). Even though this statement mainly referred to the global reach of football, it can also be applied to the basketball example. The participants in the study all follow an NBA team with global reach as well as a local basketball team.

However, in both studies there is a possibility that the samples did not consist entirely of distant fans. It is nevertheless highly unlikely that a large proportion of Chinese sports fans surveyed have ever been in physical proximity with their favourite World Cup 2014 team or their favourite NBA team. Furthermore,



Menefee and Casper (2011) underline in their study that “Chinese basketball fans have the ability to watch NBA games on TV or watch CBA games in person and on television” (p. 186). Thus, the study already emphasises that physical contact with the favourite NBA team is not common for Chinese basketball fans.

As the displaced fan alone cannot be used as the sole explanation for the emergence of the satellite fan segment (Kerr & Gladden, 2008), it is a logical consequence that the majority of the satellite fan base of an internationally famous sports team consists of distant fans. In particular, distant fans can represent a large portion on the global market (Pu & James, 2017), and are a highly interesting target group for the further growth of professional sports teams due to this potential. To date, however, there is little research in the literature that focuses explicitly on the distant fan. This also applies to the satellite fan subgroup of displaced fans, which is presented in the following subchapter.

### 2.2.7 Displaced Fans

Different studies used the term displaced fan simply for fans of geographically distant sports teams (Branscombe & Wann, 1991; Sveinson & Hoerber, 2016; Wann et al., 2001; Wann et al., 2011). However, this term better characterizes sports fans who in the past had a geographical connection to their favourite team but now reside in a different place (Kerr & Gladden, 2008).

In chapter 2.2.3.3, it was already mentioned that some literature describes displaced fans as “people who moved away from the city they grew up in yet still support the team associated with that city” (Collins et al., 2016, p. 656).

Other displaced fan definitions come from Kerr and Gladden (2008) who describe this subgroup as fans who have “a previous connection with a team but now reside outside that organisation’s geographic market” (p. 61) and from Pu and James (2017) who define these fans “as ones who previously lived in proximity to a favourite team, but subsequently reside outside that team’s geographic market” (p. 420). When comparing the above definitions from Collins et al. (2016), Kerr and Gladden (2008), and Pu and James (2017) it can be concluded that displaced fans are former local fans who moved to a geographically distant city or even to a country other than that of their favourite sports club. However, the definitions disagree on whether displaced fans must have grown up in the city of their favourite team or merely have lived there for a certain period of time.

Overall, the literature seems to be divided on this issue. While some literature states that displaced fans must have grown up and moved away from the city of their favourite team (Collins et al., 2016; Scola et al., 2019), other sources declare that they only must have lived there for a certain time (Kerr & Gladden, 2008; Pu & James, 2017; Reifurth et al., 2019), and again other studies indicate that they must have moved away from their hometown (Cho, Chiu, et al., 2021; Kraszewski, 2008). Hometown, however, does not always mean the place where a person grew up, but can also be the place where a person is from or lived the most time of their life (Cambridge Dictionary, n.d.).

The first time a displaced fan appeared in a sports fan segmentation literature was over 20 years ago. Tapp and Clowes (2002) presented the professional wanderers as a new segment of football fans and stated that “this group were

made up from people (mainly managers/professionals) who have held jobs in a number of different places who tended to strike up (weakly held) allegiances with local teams, which they retain when they next move” (p. 1256). While casual wanderers are described as casual fans with a somewhat lesser connection to the local community of their favourite team, they need to be partly demarcated from highly committed local fans over the time that they live there. However, as soon as they move to another city or country, for example due to a change of job, they retain, by definition, the allegiance to their former local team and thus transform into a displaced fan.

Since people who have lived in a specific place for a certain period of time and did not grow up there can also develop a lasting connection to a sports team (Pu & James, 2017; Tapp & Clowes, 2002; Wann et al., 2001), the definition from Collins et al. (2016) does not apply to all displaced fan. Therefore, this study follows the displaced fan definition from Pu and James (2017), which includes sports fans who have moved away from the geographical proximity of their favourite team, but do not necessarily have to have grown up there. This definition is also in line with the displaced fan definition from Kerr and Gladden (2008).

Because all displaced fans were once former local fans, their main driver of fandom, as with the local fans, is a geographical identification with a city or region. Collins et al. (2016) have found that sports fans who have a higher identification with their former hometown than with the city they currently live in also express a higher team identification with their hometown sports team. In contrast, sports fans who identify more with their current residence had

expressed a lower team identification with their former hometown team. Furthermore, they determined no significant effect on the team identification of displaced fans when they moved geographically close to another team. Reifurth et al. (2019) also notes that geographical identification with a city is the driving force behind geographically distant sports fans retaining high levels of team identification, despite living far away. Therefore, various studies advise that sports teams should label themselves more as a symbol of their city and additionally encourage their fan nation to a geographical identification with that city (Collins et al., 2016; Reifurth et al., 2019). While geographical identification is important for sports fandom, conversely, sports fandom can also be relevant for displaced fans continued geographical identification with their former home. According to Kraszewski (2008), displaced fans are able to reconnect with their former home via their fandom.

In the literature, the success of new media such as television has been related to the high demand and use of displaced fans in the US. Through these new media, it is possible for fans to receive all professional sports games throughout the country (Kerr & Gladden, 2008). Thus, Collins et al. (2016) state that this access to technology caused the emergence of the displaced fan. In addition to hometown identification, they also found the use of social media and internet streaming of sports games as important factors influencing the team identification of displaced fans. These digital media give displaced fans the opportunity to maintain their fandom.

As it has been shown that satellite fans gain feelings of uniqueness from their fandom (Andrijw & Hyatt, 2009; Sveinson & Hoeber, 2016), also the satellite

fan subgroup of displaced fans use their identification with a geographically distant team to distinguish themselves from the local sports fans in their new place of residence (Collins et al., 2016). However, Collins et al. (2016) points out that displaced fans are different from other types of satellite fans, as they usually have other reasons for their interest in their favourite team and were not in the situation of having to switch their allegiance due to a change of residence.

### 2.2.8 Detached Fan

As professional sports teams increasingly target distant fans, internationalisation strategies such as games in foreign markets can bring these fans into physical proximity with their favourite sports team for the first time. This means that after such an event, the distant fan may no longer be defined as a distant fan according to the definition by Pu and James (2017). This definition issue has given rise to the detached fan, who is presented for the first time in the following subchapter.

#### 2.2.8.1 *The Creation of the Detached Fan*

Since the systematic literature review did not identify a satellite fan subgroup that would solve the definition issue mentioned above, the detached fan was created by the author. In this study detached fans are defined as sports consumers who are supporting and following a geographically distant team via new technologies but have been in a temporary physical proximity with their favourite sports consumptive object. This temporary physical proximity could be achieved through mainly two different situations.

First, the sports fan experienced a live event of their favourite team (e.g. game or training camp) through an internationalisation activity. This could be in the satellite fan's home country, for example, but abroad from the sports team's perspective. However, the internationalisation initiative could also have taken place in another country, both for the fan and the sports team. As satellite fans enjoy opportunities to watch their favourite foreign team live, especially in their own country (Maderer & Holtbrügge, 2019), it is likely that a large number of these fans would participate in such events.

Second, the sports fan experienced a live event of their favourite team in the team's home country or, e.g. in the case of the NHL, which includes teams from two countries, at least in the home market of the league in which the team is active. Therefore, this event could be a home or away game for example. Maderer et al. (2016) already underlined on the basis of Richelieu and Pons (2006) that for satellite fans "it is often a "bucket list" item or form of pilgrimage to attend a match of their club in the home stadium" (p. 502). Also Weng (2022) highlights that it is a pilgrimage for geographically distant fans to visit the stadium of their favourite team, to which they feel attached through their team identification. As satellite fans are searching for authenticity and thus a large number of them travel to the city of their favourite team to watch a live game (Behrens & Uhrich, 2020; Nash, 2000), it is very likely that numerous satellite fans would undertake such a journey. Moreover, the costs for sports travel have become more affordable (Hognestad, 2009) and the number of travelling satellite fans is increasing (Cho, Chiu, et al., 2021).

In the literature there is already a considerable amount of research on sports tourism and sports fan travel. Thus, the results of sports satellite fan travel studies that were identified in the systematic literature review are briefly discussed in the following.

Yu (2010) identified six factors, namely the cost and ease of arranging travel plans, interest in professional sports, different cultural experience, interest in travel, the experience of watching live sporting events, and the chance to see Asian players or famous US players in the games, that influence Taiwanese satellite fans intention to travel to the US for sports tourism. Furthermore, Nishio et al. (2016) have demonstrated that there are differences in the motivations of male and female Japanese sports fan tourists. They also found motivational differences between mere spectators and fans that take part in sports and concluded that different strategies are necessary to target these sports tourist segments.

Cho et al. (2019) demonstrated that nostalgia, which in sports tourism is based on past positive experiences and is also able to strengthen the identity of fans, can motivate fans for sports travel. They found that Singaporean satellite fans' nostalgia has a positive effect on motivation and motivation significantly influence their intention to travel to and visit a foreign stadium. In addition, Cho, Chiu, et al. (2021) determined that the psychological commitment and subjective well-being of Singaporean satellite fans has a positive effect on their travel intention to attend professional football league games in Europe. They underlined that there are major differences in the travel intention of local and satellite fans due to the differences in geographic proximity. The overall

intention of satellite fans to travel in a foreign country to watch their favourite team requires a higher team identification and, above all, a tremendous desire to see the team live, due to the greater effort and costs involved (Bodet & Chanavat, 2010; Chanavat & Bodet, 2009; Cho, Chiu, et al., 2021).

As not only the sports organizations work with their internationalisation strategies to achieve physical contact with their fans abroad, but also satellite fans actively visit their favourite team, it is increasingly likely that a distant fan will become a detached fan. In addition, it is also possible that a foreign non-fan (e.g. tourist visiting a team's home game or participant of an internationalisation event) will become a detached fan through such an event.

#### *2.2.8.2 The Detached Fan in the Global Sports Fan Nation Framework*

The emergence of the detached fan definition is a particularly significant addition to the literature, as it represents the satellite sports fans who were in a temporary physical proximity to their favourite distant team, but never resided close to it. Therefore, detached fans can be clearly distinguished from displaced fans who once lived close to their favourite team (Collins et al., 2016; Pu & James, 2017) and distant fans who were never in physical proximity to their favourite team (Pu & James, 2017).

The distinction between a detached fan and a distant fan is particularly important here. Different studies already highlighted the importance of a physical contact between sports fans and their favourite sports consumptive object. Kolbe and James (2000), for example, found that attending exciting games can trigger sports fandom in people. This is confirmed by the results of Hyatt and Andrijew (2008) who focused their research explicitly on satellite

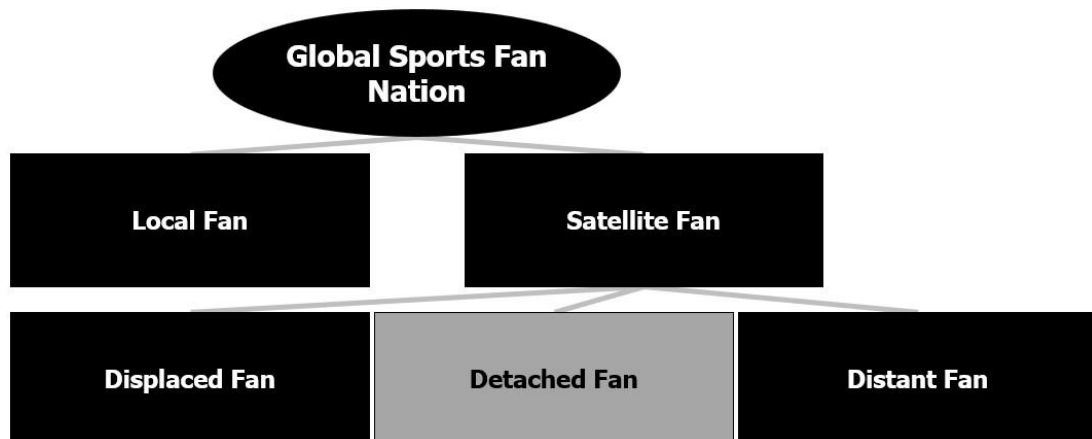


fans. Among other factors, they identified the experience of meeting a sports team's player or watching a game of a sports team live in person as significant satellite fan attraction factors. Hill and Vincent (2006) also mention that the best way to build a strong relationship with satellite fans is through experience and customer involvement rather than through conventional mass media.

Since the detached fan probably had not only physical contact with their favourite team, but perhaps also temporary personal contact with other fans at the event, leading to social well-being (Wann et al., 2011), the fandom of a detached fan is based on a more memorable experience than that of a distant fan. Therefore, it could be argued that the fandom of a detached fan may be more stable than that of a distant fan, as attending games can strengthen fans' team loyalty (Kolbe & James, 2000).

In this subchapter it has been shown that the detached fan is an important and widespread subgroup of the satellite fan, which has not yet been defined in the literature. Therefore, the *Global Sports Fan Nation* framework is extended by the detached fan in the following figure.

Figure 3: The Global Sports Fan Nation Framework (Version 2) (adapted from Collins et al., 2016; Foster & Hyatt, 2008; Kerr & Gladden, 2008; Pu & James, 2017)



Nevertheless, the *Global Sports Fan nation* framework cannot yet be considered completed. The literature examines satellite fans on an international and on a national market level. This issue will be discussed in more detail in the following subchapter. In addition, to create a uniform level of definition for satellite fan research based on geographical constraints, the *Global Sports Fan Nation* framework will be also further adapted.

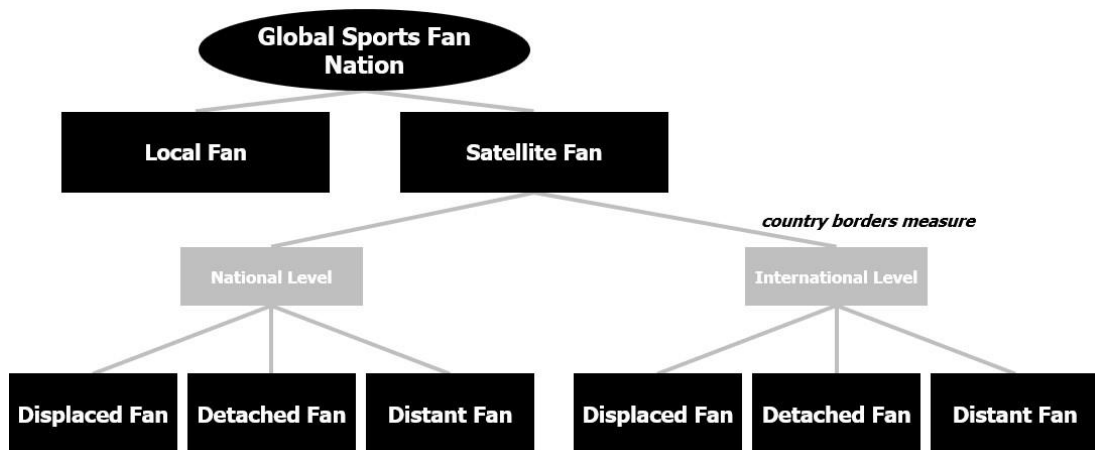
#### 2.2.9 The Creation of the Extended *Global Sports Fan Nation* Framework

In the literature the geographical location of satellite fans is considered differently. This is comparable to the geographical proximity of local fans to their favourite sports club, which is also measured differently in the literature (see chapter 2.2.2.1). Concerning the satellite fan, some studies investigate satellite fans on an international market level (e.g. NHL fan that lives in a country other than Canada and the US) (Behrens & Uhrich, 2020; Bodet & Chanavat, 2010; Bodet et al., 2020; Chanavat & Bodet, 2009; Cho, Chiu, et al., 2021; Kerr & Emery, 2011, 2016; Li et al., 2019; Menefee & Casper, 2011), while other studies examine satellite fans on a national market level (e.g. NHL fan that lives in Canada or the US, but still has a great geographical distance

to their favourite team) (Andrijw & Hyatt, 2009; Collins et al., 2016; Mills et al., 2016; Reifurth et al., 2019; Scola et al., 2019). Even though Kerr and Gladden (2008) made in their definition clear that a satellite fan supports a “foreign-based team” (p. 59), it is also possible for satellite fans to live in the same country as their favourite team (Scola et al., 2019). For example, the increased movement of our society within a country led to a particularly strong increase of displaced fans that live in the same country as their favourite team, but now at a greater distance (Collins et al., 2016; Scola et al., 2019).

Since it is possible for satellite fans to appear on an international as well as a national market level, a distinction must be made between these types of satellite fans. In fact, satellite fans on a national market level are more likely to face fewer challenges to stay in contact with their favourite team, such as lower geographic distance to the home stadium, more media access options, no to a smaller time difference to the game kick-offs and no language barrier. In contrast, satellite fans on an international market level mostly must cope with these challenges (Ben-Porat, 2000; Pu & James, 2017). Therefore, a differentiation between the different market levels of satellite fans needs to be implemented in the *Global Sports Fan Nation* framework. The following figure shows the framework with an international and national market level for satellite fans.

Figure 4: The Global Sports Fan Nation Framework (Version 3) (adapted from Collins et al., 2016; Foster & Hyatt, 2008; Kerr & Gladden, 2008; Pu & James, 2017)



The implemented country border measure determines if a satellite fan resides on an international or national market level. If a satellite fan lives outside the country – or, for example in the case of the NHL outside of the countries – that are home to the teams in the league in which their favourite team plays, this fan is a satellite fan on an international market level. In contrast if a satellite fan resides within a country in which teams are located that play for the league their favourite team belongs to, this fan is a satellite fan on a national market level. Furthermore, the framework shows that all satellite fan subcategories, namely displaced, detached, and distant fans, can appear on an international as well as a national market level.

However, the distinction between the international and national market levels for satellite fans means that local and satellite fans can be located in the same country. Thus, local fans and satellite fans can no longer be distinguished by means of the country boarder measure. Therefore, an additional measure is needed that differentiates local from satellite fans on the national market level.

As already mentioned, in the literature are a variety of different measures of geographical proximity between sports fans and their favourite teams based on the current residence of the fan and the location of the home stadium. There is a city or local county measure (Reifurth et al., 2019; Rooney, 1975; Wann & Martin, 2011), a state measure (Mills et al., 2016), a country measure (Lianopoulos et al., 2020; Maderer & Holtbrügge, 2019), and a radius measure (Collins et al., 2016). Moreover, Andrijiw and Hyatt (2009) classified satellite fans depending on geographical distance to their favourite team and the region's predominant sports team fan group. Only if the fan is not a supporter of the geographical closest professional sports team to their residence and does also not support the team with the most fans in their residential region, the fan is classified as a satellite fan.

However, only one measurement variant can be implemented in the *Global Sports Fan Nation* framework, especially to ensure the uniformity of the framework. The author decided against the city or local county measure, as professional sports teams usually have a large number of fans from neighbouring regions (Breunig, 2012).

It was also decided not to use the state measure, because depending on the sports league and the country, there are often several professional sports teams from one state (e.g. in the state of California three different NHL teams are located: Anaheim Ducks, Los Angeles Kings, and San Jose Sharks). Therefore, an NHL fan who lives close to San Jose, for example, could still be classified as a local fan of the Los Angeles Kings, even though the San Jose Sharks should be labelled as their local team.

Since the country measure already is used to distinct between satellite fans on an international and national market level, this measure cannot be used for the differentiation between local fans and satellite fans on a national market level. Also the classification method of Andrijw and Hyatt (2009), which is based on geographical distance and the region's predominant sports team fan group, seems too circumstantial and can also lead to issues in the generalisation of the framework. For example, numerous Premier League fans in Nigeria could not be classified as satellite fans according to this method, as the majority of football fans in that country are interested in Premier League teams and not their local teams (Onwumechili, 2009).

Finally, the author decided to use a radius measure for the distinction between local fans and satellite fans in the framework. This is mainly because the remaining measurement variants were not considered suitable and a radius measurement is also used by professional teams (Breunig, 2012; Collins et al., 2016). Depending on how close a sports team's home stadium is located to a national border, fans from neighbouring countries could be also classified as local fans (Mills & Rosentraub, 2014). However, this does not lead to any issues in differentiating between the various types of sports fans, as satellite fans on a national or international market level reside always outside the to be defined radius. The radius measure is implemented in the following figure of the extended *Global Sports Fan Nation* framework.

Figure 5: The Global Sports Fan Nation Framework (Extended Version) (adapted from Collins et al., 2016; Foster & Hyatt, 2008; Kerr & Gladden, 2008; Pu & James, 2017)

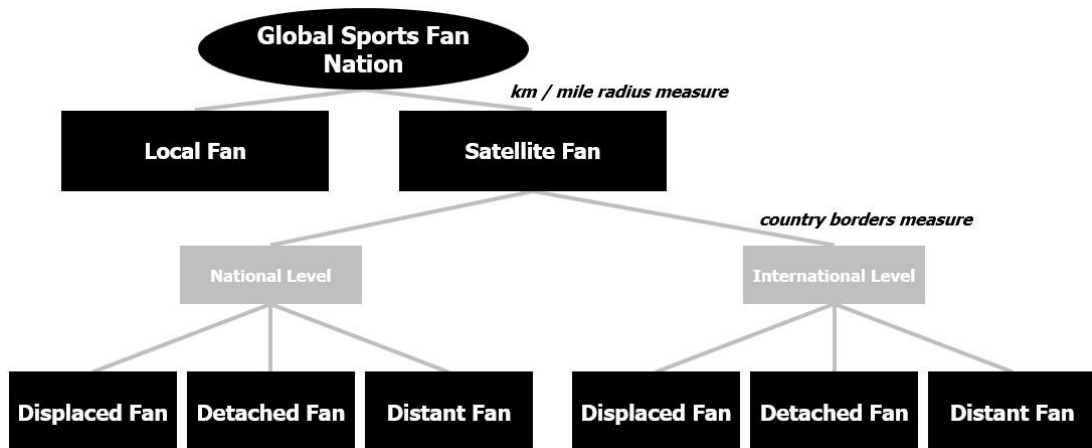


Figure 5 shows the extended framework of the *Global Sports Fan Nation*, which represents the total breadth of fans of a sports organization on a global scale. It also demonstrates that fans of a particular sports team can regard themselves as a unified group or fan nation despite different nationalities and places of residence (Behrens & Uhrich, 2020). Further, the framework highlights that stadium attendance is no longer crucial for sports fans to be a part of the fan nation (Collins et al., 2016).

The framework differentiates between different types of sports fans based on geographic constraints. It includes the populations of local fans as well as satellite fans and their subcategories, namely displaced, detached, and distant fans, on an international and national market level (Collins et al., 2016; Kerr & Gladden, 2008; Pu & James, 2017). The *Global Sports Fan Nation* framework is the first framework that summarises all satellite fan types in one framework and provides uniform definitions for future satellite fan research. The fan definitions of this framework are based on the most appropriate definitions from the literature discussed in the previous subchapters. For this purpose, definitions were partly adopted or adapted. Only in the case of the detached

fan, which has not yet existed in the literature, have new definitions been created. The definition of each sports fan type of the *Global Sports Fan Nation* framework is listed in the following table.



Table 3: Sports Fan Types and their Definitions for the Global Sports Fan Nation Framework

Sports fan type	Geographic location	Definition
Local fan	Within a to be defined km / mile radius around the home stadium of their favourite team (km / mile radius depending on sport league and country).	Sports fans that reside in geographic proximity to a favourite team (Pu & James, 2017, p. 419).
Satellite fan	Outside the to be defined km/mile radius around the home stadium.	Sports fans that maintain an emotional bond with a geographically distant team, despite the absence of a shared geography (adapted from Kerr and Gladden (2008)).
Satellite fan on national market level	Outside the to be defined km/mile radius around the home stadium, but reside in the same country as their favourite team is located in.	Sports fans that maintain an emotional bond with a geographically distant team within their country of residence, despite the absence of a shared geography (adapted from Kerr and Gladden (2008)).
Displaced fan on national market level		Sports fans who previously lived in proximity to a favourite team, but subsequently moved within that country and now reside outside that team's geographic market (adapted from Pu and James (2017)).
Detached fan on national market level		Sports fans who are supporting and following a geographically distant team within their country of residence via new technologies but have been in a temporary physical proximity with their favourite sports consumptive object.
Distant fan on national market level		Sports fans who follow a favourite team from their country of residence, but to which they are geographically distant and have not previously resided near or even been in physical proximity to their favourite team (adapted from Pu and James (2017)).
Satellite fan on international market level	Outside the to be defined km/mile radius around the home stadium, and also reside outside the country their favourite team is located in.	Sports fans that maintain an emotional bond with a foreign-based team, despite the absence of a shared geography (Kerr & Gladden, 2008, p. 59).
Displaced fan on international market level		Sports fans who previously lived in proximity to a favourite team, but subsequently reside outside that team's geographic market abroad (adapted from Pu and James (2017)).
Detached fan on international market level		Sports fans who are supporting and following a foreign-based team via new technologies but have been in a temporary physical proximity with their favourite sports consumptive object.
Distant fan on international market level		Sports fans who follow a foreign favourite team to which they are geographically distant and have not previously resided near or even been in physical proximity to their favourite team (adapted from Pu and James (2017)).

The fan types of the *Global Sports Fan Nation* framework can be assigned to different sports fans and thus represent a taxonomy. In this way, the already presented satellite fan examples Henry Kissinger (Roose, 2010) and Grant

Farred (Farred, 2002) can also be classified more precisely (see chapter 2.2.5.1). As Henry Kissinger lived close to his favourite German team and then moved to the US, he can be classified as a displaced fan on an international market level. A young Grant Farred, who lived in South Africa and had never been in physical proximity to his favourite English team at that time, however, can be classified as a distant fan on an international market level.

Furthermore, it needs to be emphasised that an individual sports fan can take on different fan types over the course of their life within the *Global Sports Fan Nation* framework. For example, a local fan moving to another country would become an international displaced satellite fan, while an international distant fan experiencing their first live game of their favourite team, would become an international detached fan.

In contrast to earlier times, digital media now enables the various sports fan types on a national and international market level to be constantly connected with each other. The *Global Sports Fan Nation* therefore no longer has to be based solely on an “imagined cohesiveness” (Foster & Hyatt, 2008, p. 269), because now almost every fan, regardless of their place of residence, is able to find contact with other fans or even their favourite sports organization itself on the internet at any time. Especially isolated satellite fans benefit from this development as they can interact with other members of the *Global Sports Fan Nation*. This demonstrates how the internet and digital media provide a non-physical common ground for all members of the *Global Sports Fan Nation* and thus makes it even easier for fandom to cross national borders (Hutchins & Rowe, 2012; Pegoraro, 2013).

### 2.3 Chapter Summary

Within this chapter, the literature on local and satellite fans was reviewed. For this reason, a systematic literature review was conducted specifically for the satellite fan segment to identify its current state of research. It was found that research on the satellite fan segment is an emerging and under researched. In addition, it was determined that different terms and definitions are used for the satellite fan and its subgroups. To have uniform definitions for the further course of this study, the *Global Sports Fan Nation* framework was established based on the literature. The framework combines local, satellite, displaced, detached, and distant fans on a national and international market level as a unified fan base of a sports team. Furthermore, it defines and relates the different sports fan types on the basis of geographical conditions. The *Global Sports Fan Nation* framework, in particular its international and national market levels, is used as a definitional basis for the satellite fan population of investigation in this study.

# 3 Literature Review: Developing the Conceptual Model

## 3.1 Chapter Overview

In this chapter, the conceptual model is constructed on the basis of previous research. For this purpose the chapter starts with the introduction of the U&G theory (Katz et al., 1974) and it is shown that this theory is highly appropriate for this social media study. Then, the individual elements of the conceptual model, namely motivations for social media use, social media engagement and fan loyalty, and their interrelationships are briefly presented. In order to distinguish between local and satellite fans in the conceptual model, geographical distance is discussed as a moderator and added to the model.

The individual model elements are then presented in more detail. It is demonstrated that the model elements consist of several factors. Based on the U&G theory, the motivations for social media use are divided into entertainment, integration and social interaction, personal identity, information, remuneration, and empowerment (Muntinga et al., 2011). Social media engagement contains of the online activity levels of consumption, contribution, and creation (Muntinga et al., 2011; Shao, 2009) and fan loyalty consists of attitudinal and behavioural loyalty (Bauer et al., 2005; Bauer et al., 2008).

The current state of research on the relationships between the individual motivations for social media use and social media engagement levels as well as social media engagement level on the fan loyalty dimensions of attitudinal and behavioural loyalty will be discussed. Based on these findings, research

hypotheses are formulated. The chapter ends with the presentation of the conceptual model.

## 3.2 Emergence of the Conceptual Model

### 3.2.1 Uses and Gratifications Theory

#### 3.2.1.1 *Uses and Gratifications Theory and its Application to Various Media*

The U&G theory arose from the question: “What do people do with the media?” (Katz, 1959, p. 2) and first appeared in Katz et al. (1974). Even though the theory only emerged in the second half of the 20<sup>th</sup> century it can also be attributed to earlier studies. For example, the gratifications of radio users were already studied at the early 1940s (Herzog, 1944; Lazarsfeld, 1940). Today, U&G theory has also a specific relevance to social media research (Whiting & Williams, 2013).

In contrast to communication effectiveness research, which focuses on the communicator's perspective, the U&G theory puts its main emphasis on the media consumer and thus investigates the influence of media from the perspective of the individual user (Aitken et al., 2008). The theoretical framework of the U&G theory can be applied to understand how and why consumers use a certain type of media. It is a sociological paradigm that suggests that audiences actively seek out specific media to satisfy particular needs instead of passively receiving media. Therefore, it is assumed that individuals are aware of their own needs and associate particular needs and gratifications with a specific choice of media. As a result, they are able to select appropriate media and content to meet those needs and obtain the desired

gratification. In this selection process it is suggested that functional alternatives of media but also non-media are available to the user (Katz, 1959; Katz et al., 1974).

The U&G theory was originally and for many decades applied in connection with traditional media such as newspaper, radio, or television (Luo et al., 2011; Pai & Arnott, 2013). However, due to the rapid development of communication technology at the turn of the 21<sup>st</sup> century, a discussion has arisen among researchers about whether and to what extent the new communication technologies are changing uses and gratifications of media (Ruggiero, 2000). Because the U&G theory assumes that individuals actively use and selectively choose media, and that internet-based media also require an active participation from their users, U&G theory has long since been considered a forward-looking approach to the study of the internet in addition to its original focus on traditional media (Eighmey, 1997; Ruggiero, 2000).

Nevertheless, attention has been drawn to the differences between traditional and new media in the literature. In contrast to traditional media, new media possess the three communication attributes of interactivity, demassification, and asynchronicity (Ruggiero, 2000). All of these attributes are also valid for social media and its opportunities for user-created content (Clavio & Walsh, 2014). Ruggiero (2000) underlines that the U&G theory is highly suitable to investigate these new media communication attributes, as they provide a comprehensive spectrum of new communication behaviour. Furthermore, Ruggiero (2000) also pointed out that the previous concepts of active and audience of traditional media have to be reconsidered and adapted to new

media, because internet users are given completely new possibilities of activities. This means that an active newspaper user, for example, can no longer be considered active in the age of internet communication.

Rubin (2002) stated that Katz et al. (1974) and Rosengren (1974) have sketched the initial principles of uses and gratifications, but that these assumptions have since been repeatedly revised. This is because over the years more knowledge about media audiences has been gathered and media changes (e.g. the shift from traditional media to new media described above) have taken place. Thus, Rubin (2002) summarises that a modern and contemporary U&G theory is based on the following five assumptions:

- First, a communication behaviour is goal-directed, purposeful, and motivated.
- Second, media audiences are fairly active and their participants select media and their content to satisfy their personal needs.
- Third, communication behaviour is mediated by different factors such as social and psychological characteristics, personalities, social groups, and relationships.
- Fourth, there is competition for choice, attention and use between media and other forms of communication.
- Fifth, in most cases people are more influential in this process than the media.

However, in the future, these assumptions could be adapted again through the emergence of new media which provide new communication possibilities to users.

Since research with the U&G theory was mainly based on initial assumptions, especially in the short period after its emergence in Katz et al. (1974), it was

often criticised (e.g. Anderson & Meyer, 1975; Carey & Kreiling, 1974; Elliott, 1974; Swanson, 1977). Criticism was mainly related to the compartmentalisation of typologies, the lack of clarity of essential constructs, the nature of the audience and whether their behaviour should be considered as too active or rational as well as the methodological dependence on self-report data (Ruggiero, 2000). As a result of the criticism, the U&G theory is referred to by some researchers as an approach rather than a theory (Calder, 2009). However, much of the criticism has been already addressed by various studies, strengthening the U&G theory (Papacharissi, 2009; Rubin, 2002, 2009; Ruggiero, 2000; Steiner & Xu, 2020). Today, it is one of the most widely used theories to examine customers' behaviour in mass communication (Filo et al., 2015; Ngai et al., 2015) and has therefore been applied in various research, including numerous social media studies (e.g. Buzeta et al., 2020; Calder et al., 2009; Clavio & Kian, 2010; Gao & Feng, 2016; Muntinga et al., 2011; Vale & Fernandes, 2018). The following subchapter discusses why the U&G theory is appropriate to apply in this social media study.

### *3.2.1.2 Appropriateness of Uses and Gratifications Theory in this Study*

The objective of this study is to apply the U&G theory to compare the motivations for social media engagement as well as the influence of social media engagement on loyalty between local and satellite sports fans. U&G theory has already been used in studies covering thematic areas of this research objective (e.g. Li et al., 2019; Vale & Fernandes, 2018).

On the one hand, as it is particularly well suited to investigate how people use new types of media and content (Eighmey, 1997; Newhagen & Rafaeli, 1996;



Ruggiero, 2000), numerous social media studies refer to the U&G theory (e.g. Buzeta et al., 2020; Chen, 2011; Dolan et al., 2016; Dolan et al., 2019; Pai & Arnott, 2013; Park et al., 2009; Whiting & Williams, 2013). Several studies also use this theory to examine the influence of social media engagement on the brand loyalty of the user (e.g. Fernandes & Castro, 2020; Jayasingh, 2019; Maslowska et al., 2016; Mishra, 2021).

In addition, a multitude of studies can be found that explicitly examine the social media motivations and behaviour of sports fans on the basis of the U&G theory. For example the social media use of sports fans of American football (Gibbs et al., 2014), football (Vale & Fernandes, 2018), basketball (Li et al., 2019; Saridakis et al., 2016), baseball (Blaszka et al., 2012), golf (Clavio & Kian, 2010), college sports in general (Clavio, 2008; Clavio & Walsh, 2014), or various sports leagues (Haugh & Watkins, 2016) has already been investigated by using the U&G approach. Filo et al. (2015) examined 70 different articles from social media research in sports and found that they fell into three categories: strategic, operational, and user-oriented. The U&G approach has been applied in the latter two categories and is within these two categories the most frequent in user-focused sports social media research.

On the other hand, U&G theory is also used in a few studies that suggest that the geographical distance of a user to another user, organisation, or company influences media selection and use. For example, Guo et al. (2010) found seven students' motivations for the use of computer-mediated communication in higher education. One of these seven dimensions is connectivity, which involves the use of media to be able to communicate with geographically

distant people. Furthermore, the U&G theory was also used by Dainton and Aylor (2002) to investigate the media use in long-distance romantic relationships. Besides letters, internet-based media were also identified as important for maintaining long-distance relationship. Pettersson (1986) was also able to demonstrate the influence of geographical distance on U&G. He found that viewers only classify television worship services as functionally similar if they are unable to attend a church themselves (e.g. due to a large geographical distance). In contrast, and partly similar to the aim of this study, Li et al. (2019) even used this theory to compare motivational differences between Chinese satellite fans on Weibo and American local fans on Twitter. However, the studies listed here are the only ones known to the author that examine the U&G theory with the influence of geographical distance.

To summarise, it can be stated that the U&G theory is highly appropriate for the use in this study. It is frequently applied in various fields of social media research, including the social media behaviour of sports fans, the influence of social media engagement on loyalty and the impact of geographical distance on media use. Therefore, this study will add on the existing studies of U&G theory by combining the aforementioned U&G research areas. Due to the lack of studies that investigate the influence of geographical influence on media use, this research will make a particularly important contribution to the literature in this area.

After this subchapter has demonstrated that the U&G theory is suitable for this study, the next subchapter briefly introduces the individual model elements of the emerging conceptual model and their interrelationships.

### 3.2.2 Additional Theoretical Underpinning of Model Elements

For sports organisations relationship building with their fans is extremely important (Heere & James, 2007). In our digitalized world, social media increasingly offers sports organisations the opportunity to build and strengthen relationships with their fans (Williams & Chinn, 2010). However, it is often challenging to motivate followers to engage on social media (Mishra, 2021). This is made even more difficult because measuring only the number of likes or comments does not allow organisations to understand the true reasons and motivations why their followers engage with them on social media (Yesiloglu et al., 2021). It is therefore important to explore the motivations of sports fans for their engagement in social media. Various studies have already explored motivations of sports fans for online media use and achieved different results (e.g. Saridakis et al., 2016; Seo & Green, 2008; Stavros et al., 2014; Vale & Fernandes, 2018). These different motivations will be discussed and presented in more detail in subchapter 3.3.1.

Since engagement is a result of motivational factors (Van Doorn et al., 2010), different motivations have a different impact on social media engagement (e.g. Muntinga et al., 2011; Saridakis et al., 2016; Vale & Fernandes, 2018). Social media engagement can therefore vary depending on the motivation and the user. In the literature social media engagement is presented either in terms of user typologies (e.g. De Valck et al., 2009; Li & Bernoff, 2011; Mathwick, 2002) or usage typologies (e.g. Muntinga et al., 2011; Shao, 2009; Tsai & Men, 2013). These different typologies will be discussed in more detail in subchapter 3.3.2.

Moreover, the literature suggests that social media engagement can increase the loyalty of consumers (Dessart, 2017; Jayasingh, 2019; Maslowska et al., 2016). This has also been confirmed with regard to sports fans and their favourite team (Yoshida et al., 2018). To support sports organisations understand what type of engagement is most effective for relationship management, this study also examines the impact of social media engagement on fan loyalty.

As loyal fans consume games and products of their favourite team even in unsuccessful times (Bristow & Sebastian, 2001; Robinson, 2012), fan loyalty is an important construct for sports marketers. Consequently, fan loyalty has already been extensively studied by different researchers (e.g. Bauer et al., 2005; Bauer et al., 2008; Bristow & Sebastian, 2001; Funk & James, 2006; Hart, 2017; Mahony et al., 2000; Tapp, 2004). It will be discussed in more detail in subchapter 3.4.1.

In this subchapter, the relationships between motivations for media use and social media engagement, as well as social media engagement and fan loyalty were briefly introduced. It has been demonstrated that motivations lead to social media engagement, which in turn influences fan loyalty. These relationships are summarised in the following figure.

*Figure 6: Emerging Conceptual Model (Version 1)*



Figure 6 represents the first step of the development of the conceptual model. Since it does not yet distinguish between local and satellite fans, geographical distance is discussed as a moderator in the following subchapter.

### 3.2.3 Geographical Distance as a Moderator

As already discussed in chapter 2.2.2, sports managers can define the local fan base of their team through a radius measure (Breunig, 2012; Collins et al., 2016). They are also aware that the fan nation of a team that has sporting success on an international level additionally consists of numerous fans from foreign countries (Thomala, 2020). However, the sports management literature has mainly studied local fans (Collins et al., 2016; Pu & James, 2017) and therefore rarely considered the influence of geographical distance on sports fandom. Nevertheless, a few studies have investigated this influence so far. For example, Reifurth et al. (2019) investigated the effect of geographic distance on team identification. Such studies will become increasingly important in the future as additional developments in communication technology and globalisation could further change fandom and sports consumption.

Dicken-Garcia (1998) already predicted that the internet audience will be defined by common interests, not geography. This assumption has proven to be correct, because today sports fans can connect with each other and exchange information about a certain league or team regardless of their geographic location. In addition, these fans can also be in daily contact with geographically distant sports organisations via the internet (Naraine, 2019). Through these interactions, for example, users who were initially only

interested in ice hockey can become fans of a specific NHL team through attraction factors perceived through the internet, such as the skills of a specific player or the team's logo and colours (Hyatt & Andrijiv, 2008). This expands the number of fans in the *Global Sports Fan Nation* of a team.

However, there is too little knowledge in the literature about these geographically distant fans, their motivations and their behaviour to be able to properly target them on digital media and thus systematically expand a team's *Global Sports Fan Nation*. In order to better address these fans on the internet, the question arises whether and to what extent the motivations for social media engagement differs between local and satellite fans.

In media research it was emphasised by Baym et al. (2004) that geographical distance has an influence on how internet-based communication platforms are selected. As already presented in chapter 3.2.1.2, it was found on the basis of the U&G theory that geographic distance has an effect on the motivations and media usage of romantic relationships (Dainton & Aylor, 2002), students (Guo et al., 2010), and viewers of worship services (Pettersson, 1986). Moreover, Tsai and Men (2017) found motivational differences for social media engagement between users in the US and China. These results are confirmed by Li et al. (2019) who also identified motivational differences between local fans from the US and satellite fans from China to follow a sports team via social media. Although in these two comparative studies of Tsai and Men (2017) and Li et al. (2019) different social media platforms were used by American (Twitter and Facebook) and Chinese (Sina Weibo and Renren) users, the author

suspects that there may also be differences between users of the same social media channel but from different countries.

The lack of satellite fan studies also means that the differences in social media engagement between local and geographically distant fans, and the impact of social media engagement on their fan loyalty are unknown. Uncovering this is particularly interesting as geographical influences such as an emotional hometown connection to the sports team's city (James et al., 2002) and offline experiences such as attending games (Koo et al., 2009) are described in the literature as important in the development of fan loyalty.

However, the systematic literature review identified only two other comparisons of local and satellite fans besides the study of Li et al. (2019). Parganas et al. (2017) found similarities and differences of the effect of social media interaction on brand associations between English and Greece Premier League Fans. Furthermore, Li et al. (2017) found that local fans have a higher attachment to their team, whereas satellite fans have a higher association with the sports, players, and the league, and are more dependent on using social media in their daily life. This social media dependence on satellite fans can be explained by the fact that local fans can access additional media (e.g. newspaper or local radio shows) about their favourite team due to their geographical proximity (Kolbe & James, 2000; Li et al., 2017). Based on the above, there could be significant differences in social media engagement behaviour and its influence on fan loyalty compared to local fans due to geographical distance and satellite fans' dependence on social media.

In order to investigate these expected differences between both fan types, a moderator for geographical distance is added to the emerging conceptual model presented in subchapter 3.2.2. Since this study compares local fans with international satellite fans, this moderator is therefore a combination of the km / mile radius measure and country border measure of the *Global Sports Fan Nation* framework. The moderator is positioned in the relationship between motives for the use of social media and social media engagement, and in the influence of social media engagement on fan loyalty. The emerging conceptual model is illustrated with the moderators in the next subchapter.

#### 3.2.4 Summary of the Emerging Conceptual Model

In the previous subchapters it has already been shown that motivations lead to social media engagement, which in turn impacts fan loyalty. In addition, geographical distance was introduced as a moderator to distinguish and compare these relationships between local fans and satellite fans on a national and international market level. Previous research has already shown that local and satellite fans differ (Li et al., 2017; Li et al., 2019; Parganas et al., 2017). The emerging conceptual model has been expanded in the following figure to include the moderator geographical distance.

Figure 7: Emerging Conceptual Model with Geographical Distance as a Moderator (Version 2)



Figure 7 represents the second step of the creation of the conceptual model. In the course of this chapter, the individual components of motivations, social



media engagement, and fan loyalty as well as their relationships will be introduced and discussed in more detail.

### 3.3 The Impact of Motivations for Media Use on Consumers' Online Brand-Related Activities

#### 3.3.1 Motivations for Media Use

Today, companies face the key challenge of how to motivate their consumers to engage with their brands on social media (Mishra, 2021). The same is true for the sports business and their fans. Kim and Trail (2011) argued that as a result of the commercialisation of the sports and rapidly rising attendance costs “sport consumers are increasingly discontented and disconnected with sport organizations” (p. 57). Therefore, sports teams want to interact with their fans on social media to strengthen their relationships (Stavros et al., 2014).

To gain a better understanding of what motivates fans to consume sports online, Seo and Green (2008) developed the motivation scale for sport online consumption. Their scale consists of 10 different motivation dimensions: Information, entertainment, interpersonal communication, escape, pass time, fanship, team support, fan expression, economic, and technical knowledge. Although this scale has been developed for the consumption of sports team websites, its motivations can also be applied in sports fans' social media usage (Li et al., 2019). The motivation scale for sport online consumption was used, for example, by Haugh and Watkins (2016) to investigate the social media use of sports fans on Twitter, Facebook, Instagram, and Snapchat. Furthermore, Li et al. (2019) have adopted six motivations of this scale for their social media research with sports fans and clustered these motivations into the three

categories of content-based gratifications (information, entertainment, and technical knowledge), social gratifications (team support), and personal gratifications (escape and passing time). Witkemper et al. (2012) only used the four motivations of information, passing time, fanship, and entertainment of the scale for their sports fans' social media usage study. In contrast, other motivations for sports fans' interactions on social media were found by Stavros et al. (2014). They determined the motivations of passion, hope, esteem, and camaraderie.

However, there are some differences between the motivations for social media use of sports fans presented above and the traditional motivations of the U&G theory. Katz et al. (1973) suggested five classifications of needs satisfied through the use of mass media, namely cognitive, affective, personal integrative, social integrative, and tension release. On this basis, other U&G researchers have established motivations for media use. The motivations of entertainment, integration and social interaction, personal identity, and information were identified by McQuail (1983). These are the reworked motivational categories of diversion, personal relationships, personal identity, and surveillance suggested by McQuail et al. (1972). Today, entertainment, integration and social interaction, personal identity, and information are the most widely recognised motivations in U&G theory and were originally used for traditional media (Buzeta et al., 2020; Muntinga et al., 2011; Vale & Fernandes, 2018). Nevertheless, it has been found that these motivations are also applicable to social media (e.g. Buzeta et al., 2020; de Silva, 2019; Fernandes & Castro, 2020; Tsai & Men, 2013, 2017; Vale & Fernandes, 2018).

Due to the interactive nature of social media platforms, however, researchers revised and expanded the original set of motivations of U&G theory. Thus, the two additional motivations of remuneration and empowerment were introduced by Muntinga et al. (2011). These motivations emerged from social media research and serve as a complement to the original motivation set of McQuail (1983). The six-folded motivation set was already applied in various social media research (e.g. Buzeta et al., 2020; Saridakis et al., 2016; Tsai & Men, 2013, 2017) and some researchers have extended it with further motivations in their social media studies (e.g. Kitirattarkarn et al., 2020; Vale & Fernandes, 2018). The studies of Saridakis et al. (2016) and Vale and Fernandes (2018) even examined these social media usage motivations with sports fans.

The four original U&G motivations of entertainment, integration and social interaction, personal identity, and information as well as the two additional social media motivations of remuneration and empowerment are more commonly used in U&G research than the other motivation examples presented in this subchapter. In addition, these motivations showed high validity and reliability in several social media studies (e.g. Buzeta et al., 2020; Muntinga, 2016; Tsai & Men, 2013; Tsai & Men, 2017) and have also been explicitly proven in social media studies with sports fans (e.g. Saridakis et al., 2016; Vale & Fernandes, 2018). Furthermore, these six motivations are directly related to the COBRAs framework (Muntinga et al., 2011), which is introduced in detail in chapter 3.3.2 and is an important part of the conceptual model of this study.

Therefore the six-folded motivation set is applied in this study. Often these six individual motivations are described by researches in terms of the various sub-motivations they consist of (e.g. Muntinga et al., 2011; Tsai & Men, 2013, 2017; Vale & Fernandes, 2018). The most recent and detailed descriptions of these six motivations come from Buzeta et al. (2020). They reviewed 30 studies of the prior literature and found a total of 19 sub-motivations which were measured by an initial pool of 60 items. Because Buzeta and his colleagues have based their definitions on the results of their recent literature review, they are used to describe each of the six social media usage motivations. Furthermore, the definitions of Vale and Fernandes (2018) are partly added as a supplement when describing the individual motivations due to the sports context of their study. Each of the six motivations are defined, described and their sub-motivations are presented in the following subchapters.

#### *3.3.1.1 Entertainment*

Entertainment is one of the four motivation categories for general media use from McQuail (1983). Buzeta et al. (2020) defined entertainment based on Park et al. (2009), Shao (2009), and Tsai and Men (2013) as “the emotional relief generated by temporarily recreating or repressing from daily routines” (p. 81). This definition is in line with many other definitions such as the one from Vale and Fernandes (2018), which is based on Baldus et al. (2015) and Muntinga (2013) and states that entertainment “relates to the need of relaxation and evasion from daily routine through brand-related activities” (p. 41).

In the social media U&G literature, entertainment is described as an overall motivation which is not separated into different sub-motivations (Muntinga et al., 2011). Other researchers identified several media gratifications that are included in the entertainment motivation. These different media gratifications are distraction or escape from issues or daily routine; emotional release or relief; relaxation, aesthetic, or cultural enjoyment; and passing time, having fun, and playing (Buzeta et al., 2020; Muntinga et al., 2011; Saridakis et al., 2016). However, since these sub-dimensions are all included in entertainment, this study examines entertainment as an overall motivation.

### *3.3.1.2 Integration and Social Interaction*

Integration and social interaction is also one of the four motivations categories for general media use by McQuail (1983). Based on Papacharissi and Rubin (2000) and Valenzuela et al. (2009) this motivation was defined as “the users’ feeling of connection (to an online community, for instance) that enables them to increase their knowledge about other people’s circumstances and augment individuals’ socializing capabilities” by Buzeta et al. (2020, p. 81). A similar, but due to the focus of this study on sports fans slightly more appropriate definition comes from Vale and Fernandes (2018) who indicate that integration and social interaction “relates to the need of bonding with people with a common passion, gaining a sense of belonging to a community and meeting like-minded others” (p. 42). The common passion mentioned in this definition is reminiscent of the fan nation (Foster & Hyatt, 2008) and shows that it can thus be a motivation for sports fans – especially satellite fans – to interact with other fans and become part of the *Global Sports Fan Nation* (see chapter 2.2.9) via social media.

Social media researchers agree that the motivation of integration and social interaction consist of various sub-motivations, such as a sense of belonging (e.g. connectedness), support seeking or peer group support (e.g. bandwagon), and enhanced interpersonal connections with friends, family, society, or a specific community (e.g. community building) (Buzeta et al., 2020; Muntinga et al., 2011; Saridakis et al., 2016; Tsai & Men, 2013).

#### *3.3.1.3 Personal Identity*

The motivation personal identity also belongs to the four categories for general media use by McQuail (1983). Buzeta et al. (2020) drew his definition upon Jensen Schau and Gilly (2003) and described personal identity as “the need for shaping one’s identity by providing an image of one’s personality and by receiving peer recognition” (p. 81). Therefore, this motivation includes media gratifications that are concerned with the individual self (Muntinga et al., 2011; Papacharissi, 2007). These sub-motivations are discussed as social recognition, self-expression (i.e. using social media to show that a sports team is an extension of a person’s identity), self-presentation (i.e. using social media to present one’s personality to other users), and self-assurance (i.e. using social media to receive positive feedback from other users) in the literature (Buzeta et al., 2020; Jensen Schau & Gilly, 2003; Muntinga, 2016; Muntinga et al., 2011).

#### *3.3.1.4 Information*

Information is the last of the four motivational categories for general media use by McQuail (1983). The definition from Buzeta et al. (2020) rests on Muntinga et al. (2011) and Park et al. (2009) and states that the motivation information

is the “individuals’ understanding of relevant events and conditions in the world around” (p. 81). While this definition is very general, other researchers explicitly relate their definition of the motivation information to brands. Vale and Fernandes (2018) indicate that information “relates to the need of accessing information directly from brands. It refers to the need of staying updated about the brand or learning from other consumers’ knowledge”(p. 41). Their definition is based on Gummerus et al. (2012), Muntinga (2013), and Zaglia (2013).

The motivation of information also consists of various sub-motivations. These are often described as opinion, advice or information seeking, sharing or exchanging information, surveillance (i.e. knowledge about other people), and self-documentation (i.e. lifelogging) in the literature (Buzeta et al., 2020; Muntinga et al., 2011; Tsai & Men, 2013). However, Muntinga et al. (2011) underlines that many studies mostly only mention information, when describing this motivation (e.g. Park et al., 2009).

#### *3.3.1.5 Remuneration*

Remuneration emerged in the general social media research literature as an additional motivation for online brand-related activities (Muntinga et al., 2011; Nov, 2007; Wang & Fesenmaier, 2003). It is defined by Buzeta et al. (2020), who based their definition on Muntinga (2016), Muntinga et al. (2011), and Tsai and Men (2013), as the “users’ intention to obtain some future benefit or external reward that basically stands apart from the behavior” (p. 81). This external reward could be economic incentives such as prizes, giveaways, direct discounts, coupons, or a monetary payment (Baldus et al., 2015; Buzeta

et al., 2020; Muntinga, 2013; Wang & Fesenmaier, 2003), but also individual demands such as particular software (Hars & Ou, 2002) or career-related benefits (Nov, 2007). As these rewards are often offered on social media platforms (Wang & Fesenmaier, 2003), users participate in these online communities to receive them (Tsai & Men, 2013). For sports fans, for example, this is often operationalised through competitions, contests or raffles that are promoted via social media (e.g. NHL, 2021a; Vancouver Canucks, 2022b).

#### *3.3.1.6 Empowerment*

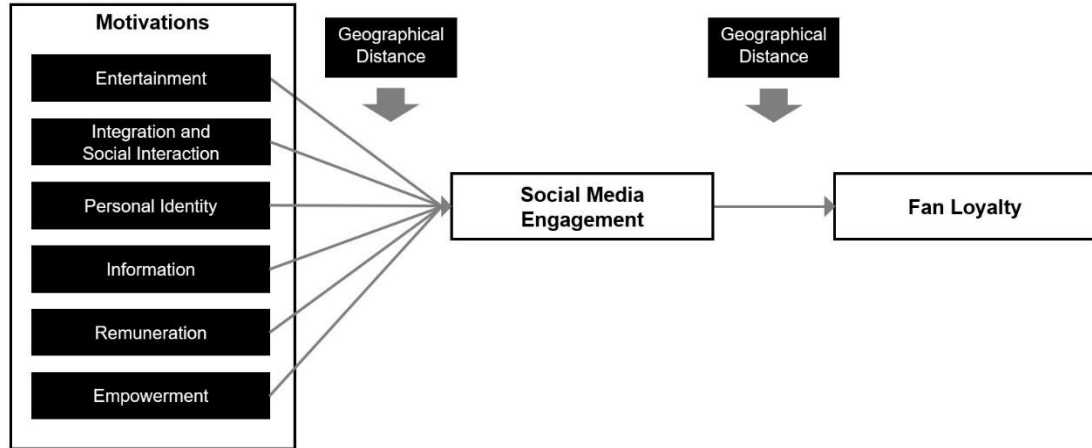
The motivation empowerment has also only emerged in social media research as another motivation of the U&G theory (Muntinga et al., 2011) and thus was not investigated in the context with traditional media. Buzeta et al. (2020) defines empowerment based on Muntinga (2016), Muntinga et al. (2011), and Tsai and Men (2013) as an “individuals’ purpose of exerting their influence or power on others’ perceptions (e.g. consumers, companies, brands), by voicing their opinions and by demanding improvements in products, services, and corporate policies” (p. 81). Thus, the empowerment motivation relates to social media users that want to influence other users, companies and institutions or want to enforce service accuracy and excellence (Buzeta et al., 2020; De Veirman et al., 2017; Muntinga et al., 2011).

For example, Kaye (2007) determined that reviewing the accuracy of broadcast media coverage is a driver to read political blogs and Wang and Fesenmaier (2003) identified the enforcement of service excellence as a motivation to engage in online travel communities.



The six motivations for social media engagement discussed above are included into the following emerging conceptual model.

Figure 8: Emerging Conceptual Model with Motivations for Social Media Engagement (Version 3)



### 3.3.2 Consumers' Online Brand-Related Activities and its Hierarchical Activity Levels

In the past, audiences of traditional media, such as newspaper, radio, and television, could choose among a large range of offers from various media suppliers. However, this audience could be less active compared to the audience of today's internet users (Ruggiero, 2000). Due to the rapid dissemination of the internet and Web 2.0 technologies this has changed decisively. Social media platforms in particular have given consumers the opportunity to share their own articles, reviews, videos, audios, pictures, or images, but also to interact with brands, companies, institutions, and other users (Kaplan & Haenlein, 2010). Thus, new media such as social media are very different from traditional media because the audience can actively participate (Ruggiero, 2000).

Van Doorn et al. (2010) already mentioned that engagement behaviours can "serve as a useful framework for classifying and segmenting customers, based

on their propensity to engage and the types of engagement behaviors they display” (p. 263). In order to better understand these new media behaviours of consumers, researchers have classified them specifically on their online engagement behaviour and developed different consumer typologies (Brandtzæg, 2010). For example Mathwick (2002) divided internet users in lurkers, socialisers, personal connectors, and transactional community members. According to this classification, lurkers do not use the internet at all for communication, whereas socializers use it to engage with people from specific online communities and maintain their contact with friends and family. In contrast, personal connectors use the internet to remain in contact with family or business contacts, but do not participate in online communities. Transactional community members, however, use the internet mainly to interact with online retailers and their fellow customers.

Another example comes from Li and Bernoff (2011) who focused their typology specifically on social media users. They differentiate between seven social media user types, namely inactives, spectators, joiners, collectors, critics, conversationalists, and creators. The social media behaviour of these user types is increasing in the listed order. While inactives generally do not use social technologies, creators create their own content and upload it to various online platforms.

Further typologies of online behaviour were developed by De Valck et al. (2009). They divided members of virtual communities in the six different types of core members and labelled them as conversationalists, informationalists, hobbyists, functionalists, and opportunists. Core members contribute the most

to this online community by providing, retrieving and discussing information. Conversationalists discuss mainly information in the online community, while informationalists focus on retrieving and supplying information. Hobbyists concentrate most on keeping their personal website up to date. Functionalists and opportunists both want mainly to retrieve information from this online community. In a direct comparison, however, the opportunist is even less active than the functionalist and retrieves only a small amount of content.

Nevertheless, in the literature attention is drawn to the limitation of these user typologies. It is often the case that people take on several roles (Muntinga et al., 2011; Saridakis et al., 2016). In this context, Muntinga et al. (2011) explicitly mentions the typology from Mathwick (2002) as an example. Depending on a person's motivations and objectives, they can transform from a lurker to a socialiser in a matter of seconds. It is therefore argued that user typologies are oversimplified (Brandtzæg, 2010; Muntinga et al., 2011). In contrast, usage typologies are described as more beneficial, although they are significantly less common in social media research than user typologies. Since usage typologies divide user behaviour into distinct usage types, people can be classified into these types depending on different situations. This means that usage typologies expect from the outset that people can engage in different behaviours (Muntinga et al., 2011).

Shao (2009) created a social media usage typology consisting of the three behaviour levels consuming, participating, and producing. While consuming (i.e. view or read content) represents the least active behaviour, participating (i.e. comment on or share content) is positioned in the middle and producing

(i.e. creation and publication of own content) involves the most active social media use behaviour. This model focuses on the individuals' online engagement with user-generated media. Therefore this model can be applied to any type of online content (Shao, 2009; Yesiloglu et al., 2021).

Shao's (2009) usage typology was further developed by Muntinga et al. (2011) in relation to brand-related activities on social media platforms. Their COBRAs framework includes the three basic usage types of consuming, contributing and creating. COBRAs are defined as "a set of online activities on the part of the customer that is related to a brand, and which vary in the levels of interaction and engagement with the consumption, contribution, and creation of media content" (Schivinski et al., 2016, p. 5). These engagement types constitute different levels of social media activeness with brands and thus form a continuum from low and passive (consuming) to high and active (creating) brand-related social media activities (Malthouse et al., 2013). Thus, the continuum takes into account the extent to which the intensity of engagement varies (Dolan et al., 2016). The hierarchical relationship between the three engagement levels was empirically confirmed by the results of Schivinski et al. (2016). The following table shows the intensity and summarises example activities of brand-related engagement on social media for each level of the COBRAs framework.

Table 4: COBRA Levels, their Intensity and Example Activities (adapted from Dolan et al., 2019; Li & Bernoff, 2011; Muntinga et al., 2011; Schivinski et al., 2016; Shao, 2009; Yesiloglu et al., 2021)

COBRA level	Intensity	Example activities
Consuming	Passive	<ul style="list-style-type: none"> <li>• Viewing brand/product-related posts</li> <li>• Viewing brand-related videos</li> <li>• Viewing brand-related pictures, photos, or images</li> <li>• Listening to brand-related audio</li> <li>• Reading brand posts, comments, and conversations on brand profiles on social media sites</li> <li>• Reading product or brand reviews on social media sites</li> </ul>
Contributing	Active	<ul style="list-style-type: none"> <li>• Liking products and/or brands</li> <li>• Liking brand-related content</li> <li>• Sharing of brand-related content created by the brand itself or by other users</li> <li>• Commenting on brand-related weblogs, video, audio, pictures, etc.</li> <li>• Engaging in conversations about brands and their products, e.g. on online brand community forums or social media sites</li> <li>• Joining a brand profile on a social media site</li> <li>• Inviting a friend to like a brand-related social media page</li> <li>• Tagging friends, families, or strangers in brand/product-related content and conversations</li> <li>• Clicking on ads of brands</li> </ul>
Creating	Active	<ul style="list-style-type: none"> <li>• Publishing brand-related posts</li> <li>• Publishing brand/product-related video, audio, pictures, images, etc.</li> <li>• Writing brand-related articles</li> <li>• Writing product reviews</li> </ul>

As online brand engagement of consumers is described as a passive-to-active concept with three different behaviour levels (Dolan et al., 2016; Dolan et al., 2019), it was underlined by Schivinski et al. (2021) that the COBRAs framework is different from other behavioural constructs. Van Doorn et al. (2010), for example, divides online engagement of consumers in a lower and higher level. While consumers on the lower engagement level consume, like and share the content of companies, consumers on a high engagement level create their own content (e.g. product reviews) and post it in the internet. Since consumers at the lower level of this behavioural construct not only consume content passively, but also engage in active online activities such as sharing

content, there is no passive behavioural level included. In addition, the three-tier system of the COBRAs framework overcomes the issues of earlier behavioural constructs as people can engage in all three levels at once, rather than being categorized as just one general user type (e.g. De Valck et al., 2009; Li & Bernoff, 2011; Mathwick, 2002).

In contrast, Tsai and Men (2013) and Triantafillidou and Siomkos (2018) both used an online brand engagement model with two activity levels, namely consuming and contributing. Both activity levels are based on the COBRAs framework by Muntinga et al. (2011). However, some changes have been made. For example, the activity of liking online brand content, which in the COBRAs framework is located in the middle level of contributing, was moved to the consuming activity level in the two-stage model used by Tsai and Men (2013) and Triantafillidou and Siomkos (2018). Furthermore, by deleting the creating level of the COBRAs framework, the online behaviour elements of this level (e.g. publishing brand-related content) were moved to the contributing level. Because of these changes, this two-stage online engagement model, unlike the COBRAs framework, does not have a purely passive online behavioural level. This approach is similar to Fernandes and Castro (2020) who divide online engagement in lurking and posting activities.

For this reason and also “not to miss any nuances that may occur if only two categories were investigated” (Yesiloglu et al., 2021, p. 1851) this research uses the COBRAs framework of Muntinga et al. (2011) consisting of the three online engagement levels of consuming, contributing, and creating. Another reason for using the COBRAs framework in this study is that it has already

proven itself in social media research with sports fans (Saridakis et al., 2016; Vale & Fernandes, 2018). Furthermore, Shao's (2009) online engagement model, which also consists of three online engagement levels, was not used in this study due to the following rationale. The COBRAs framework builds on this model but in contrast focuses explicitly on brand-related online activities (Muntinga et al., 2011). Because sports organizations are referred to as brands (Richelieu, 2016; Richelieu et al., 2008) with which sports fans can engage in social media (Clavio & Walsh, 2014; Stavros et al., 2014; Vale & Fernandes, 2018), the COBRAs framework was considered more appropriate for this research compared to Shao's (2009) model.

The individual levels of interactivity of the COBRAs framework are presented in more detail in the following subchapters. They are listed in increasing order of online engagement activity from consumption to creation.

#### *3.3.2.1 Consumption Activity Level*

The consumption activity level of the COBRAs framework contains online engagement activities on social media such as following a brand on social media, viewing brand-related posts, pictures, photos, images, or videos, listening to brand-related audio, or reading brand-related comments, conversations, or product reviews on social media sites (Dolan et al., 2019; Mishra, 2021; Muntinga et al., 2011; Schivinski et al., 2016; Yesiloglu et al., 2021). This means that the consumption level describes online participation that does not include active contribution or creation behaviour elements with brand-related content (Muntinga et al., 2011; Shao, 2009).

Therefore, this online engagement type is also described as passive (Dolan et al., 2016; Dolan et al., 2019) and the minimum level of online brand-related activeness (Muntinga et al., 2011). In online marketing this level is often referred to as the advertisement's reach or impressions (Buzeta et al., 2020). Due to the low user activity, the level of consumption is the most frequent online engagement type (Muntinga et al., 2011).

### *3.3.2.2 Contribution Activity Level*

The contribution activity level of the COBRAs framework includes online engagement activities on social media such as liking brands and their posted content, sharing not self-created brand-related content, commenting on brand-related content, engaging in conversations about brands, clicking on ads of brands, tagging other users in brand-related content and conversations, and inviting friends to like brand-related social media pages (Dolan et al., 2019; Muntinga et al., 2011; Schivinski et al., 2016; Yesiloglu et al., 2021). This level therefore represents the brand-related interactions on social media that take place between the user and the brand or the user and other users (Yesiloglu et al., 2021).

These interactions, however, only relate to brand-related content that is not created by the user themselves, but by the brand or other consumers (Schivinski et al., 2016). For these reasons the contribution activity level is described as active (Dolan et al., 2016; Dolan et al., 2019) and the middle level of online brand-related activeness (Muntinga et al., 2011). Social media platforms offer various functions such as liking, sharing, or commenting that enable users to actively engage with brands with little effort (Dolan et al., 2019;



Kabadayi & Price, 2014) without having to create and upload content themselves (Yesiloglu et al., 2021). It is argued that online marketers aim to increase the contribution activity level on social media to achieve active online engagement from other users (Buzeta et al., 2020) and thus convert these users into brand endorsers (Dolan et al., 2016).

### *3.3.2.3 Creation Activity Level*

The creation activity level of the COBRAs framework covers online engagement activities on social media such as creating and publishing brand- or product-related content and writing brand-related articles or reviews (Muntinga et al., 2011; Schivinski & Dabrowski, 2016; Yesiloglu et al., 2021). Since at this engagement level the users create the content by themselves and then upload it to the internet, it is an even more active level than the contribution level (Dolan et al., 2016; Dolan et al., 2019). Therefore, this is the highest level of online brand-related activeness (Muntinga et al., 2011). Social media platforms offer their users simple and innovative ways to create and post their own content (Yesiloglu et al., 2021). Consequently, an increasing amount of content is being uploaded to the internet.

The video platform YouTube is a suitable example for this. While in 2009, 20 hours of video material were uploaded to YouTube every 60 seconds, in 2019 this number increased dramatically to 500 hours uploaded per 60 seconds (Ceci, 2020). Moreover, an average of almost 65.000 pictures are uploaded on Instagram per minute (Wise, 2022). However, the above examples only include two of the many widely used social media platforms, such as other platforms like Facebook or TikTok (Dixon, 2021). Thus, the average number

of content uploaded per minute on social media is in general significantly higher. This underlines that a multitude of social media users engage in online behaviour at the creation activity level. Brand-related content creation has been found to have an impact on brand equity and the user's purchase decision, as it indicates the user's commitment to the brand (Mishra, 2019). But other users can also be influenced by the content created and uploaded by a user and thus be stimulated to online activities on the consumption and contribution level (Muntinga et al., 2011).

### 3.3.3 The Relationship between Motivations for Media Use and Consumers' Online Brand-Related Activities

As this study investigates and compares the specific online engagement activity levels consumption, contribution, and creation of sports fans, it follows the consumer engagement behaviour definition by Van Doorn et al. (2010). They suggested that consumer engagement goes beyond the buying process and thus defined it as "a customer's behavioral manifestations that have a brand or firm focus, beyond purchase, resulting from motivational drivers" (Van Doorn et al., 2010, p. 254). This definition was also used by Schivinski (2021) in conjunction with the COBRAs framework.

It is important to highlight that the definition by Van Doorn et al. (2010) indicates that customer engagement results from motivational drivers. Chapter 3.3.1 already presented the different motivations for online engagement, namely entertainment, integration and social interaction, personal identity, information, remuneration, and empowerment. Muntinga et al. (2011) was the first to suggest a relationship between these six motivations and different

activity levels of online engagement, but other researchers have also found an influence of these motivational drivers. In the literature, a total of 12 different studies could be identified that examined the full set of these six motivations or only a part of them in relation to online engagement levels (Buzeta et al., 2020; Mishra, 2021; Muntinga, 2013, 2016; Muntinga et al., 2011; Piehler et al., 2019; Saridakis et al., 2016; Shao, 2009; Tsai & Men, 2013, 2017; Vale & Fernandes, 2018; Yesiloglu et al., 2021).

The findings of these studies are summarised in the following subchapters. In some cases, this reveals major differences in the results of the studies. However, these major differences could be due to the various types of user samples and social media platforms that have been investigated in the studies.

#### *3.3.3.1 Entertainment and Consumers' Online Brand-Related Activities*

Research on the influence of the entertainment motivation on COBRAs has shown mixed results. For example, Tsai and Men (2013) and Mishra (2021) both describe entertainment as an important antecedent of COBRAs. In addition, other studies also state that entertainment has a positive influence on all three online engagement levels of consumption, contribution, and creation (Muntinga, 2013, 2016; Muntinga et al., 2011). Therefore, Muntinga (2016) even calls entertainment the basic underlying motivation for all three COBRA levels. However, other researchers have only found a positive influence of the entertainment motivation on the consuming activity level (Buzeta et al., 2020; Piehler et al., 2019; Saridakis et al., 2016; Shao, 2009). In the study of Vale and Fernandes (2018), entertainment was not even significant at any of the three COBRA levels. One reason for these strong

differences could be the different samples and online platforms examined in these studies. Tsai and Men (2017), for example, found that entertainment is a more important motivation for online engagement for Weibo users from China than for Facebook users from the USA. In addition, Li et al. (2019) identified entertainment to motivate Chinese NBA fans to use social media more than US NBA fans.

Since the aim of the study is to compare local and international satellite fans and the effect of entertainment on COBRAs has already been proven in several studies, this research focuses on the similarities and differences between the two fan groups. International satellite fans are dependent on digital media (Kerr & Gladden, 2008; Li et al., 2017; Pu & James, 2017) and use it as their main source to satisfy their sports fandom with entertainment. In contrast, local fans have a greater choice to get entertained by their sports team. Because of their geographic proximity, they can watch games at the stadium, for example, and do not have to rely on watching game highlights on social media. Therefore, the following hypothesis (H) is proposed:

**H1:** *The influence of entertainment on the social media engagement activities (a) consumption, (b) contribution, and (c) creation is greater for international satellite fans than local fans.*

### *3.3.3.2 Integration and Social Interaction and Consumers' Online Brand-Related Activities*

Different results on the influences on COBRAs are also found for the motivation of integration and social interaction. Most studies observed a positive impact of this motivation on all three COBRA levels (Muntinga, 2013,

2016; Piehler et al., 2019; Vale & Fernandes, 2018). Yet integration and social interaction is only described as a secondary motivation by Muntinga (2016). Muntinga et al. (2011), and Saridakis et al. (2016) only suggested a positive relationship to the contribution and creation level. In contrast, Shao (2009) only emphasized a positive effect on contribution. Contrary to the previously presented studies, Buzeta et al. (2020) found a negative correlation between the motivation integration and social interaction and the online brand engagement level creation in social media platforms with customized messages (e.g. Facebook or Reddit). Tsai and Men (2013) did not determine any effect of this motivation on online consumer engagement and Tsai and Men (2017) again identified differences between Chinese and American users. While integration and social interaction is an important motivation for Chinese Weibo users, it is not significant for American Facebook users. In addition, social interaction is a driver for behavioural intentions of satellite fans, such as watching matches or buying merchandise (Miranda et al., 2021).

When comparing local and international satellite fans, it is noticeable that the latter are not as integrated into their teams' *Global Sports Fan Nation* as their local counterparts due to their geographical distance (Wann, 2006c; Wann et al., 2011). The only options to become more integrated into their fan nation and have social interactions with other fans are foreign fan clubs (Scola et al., 2019), which are not always in the near vicinity of every international satellite fan, or advertised on the internet. Because of these limited options and the numerous advantages the internet, and social media in particular, offers satellite fans to connect with other fans, the following hypothesis is formulated:

**H2:** *The influence of integration and social interaction on the social media engagement activities (a) consumption, (b) contribution, and (c) creation is greater for international satellite fans than local fans.*

### *3.3.3.3 Personal Identity and Consumers' Online Brand-Related Activities*

Research on the motivation personal identity also shows different results in its influence on COBRAs. Personal identity is labelled by Muntinga (2016) as a secondary motivation. While some studies found a positive effect on all three COBRA levels (Muntinga, 2013, 2016; Saridakis et al., 2016), others suggest only an influence on contribution and creation (Muntinga et al., 2011) or merely on the creation level (Shao, 2009; Vale & Fernandes, 2018). In contrast, Tsai and Men (2013) and Buzeta et al. (2020) observed no impact on any COBRA level. This is in line with the findings of Tsai and Men (2017) who found that personal identity is an unimportant motivation for Chinese and American social media users.

In contrast, personal identity is essential for sports fans, as they identify themselves with their favourite team (Funk & James, 2001; Hunt et al., 1999). When comparing local fans and international satellite fans, it is important to note that geographic distance to a sports team does not decrease their identification with that team (Menefee & Casper, 2011; Reifurth et al., 2019). Therefore, there can be also international satellite fans that identify even stronger with their favourite team than local fans. However, while local fans mainly support their team because of their local identification (Hunt et al., 1999; Jones, 1997; Watkins & Cox, 2020), satellite fans use their identification to be different than others in their geographic vicinity (Andrijw & Hyatt, 2009;

Sveinson & Hoeber, 2016). Although the reasons for identification with the sports team differ between local and international satellite fans, it is assumed that personal identity is equally important as a motivation for social media engagement for both fan groups. This leads to the hypothesis as follows:

**H3:** *There are no differences between the influence of personal identity on the social media engagement activities (a) consumption, (b) contribution, and (c) creation between local fans and international satellite fans.*

#### *3.3.3.4 Information and Consumers' Online Brand-Related Activities*

Research on the influence of the information motivation on COBRAs show rather consistent results. Although some studies suggest a positive influence on all three COBRA levels (Muntinga, 2013, 2016), which is why information is labelled by Muntinga (2016) as a basic underlying motivation for consumption, contribution, and creation, the remaining studies contradict this. The majority of studies only attribute a strong influence on the consumption level to the motivation of information (Buzeta et al., 2020; Muntinga et al., 2011; Saridakis et al., 2016; Shao, 2009; Vale & Fernandes, 2018; Yesiloglu et al., 2021). In contrast, Piehler et al. (2019) did not identify any effect on any of the COBRA levels. However, Tsai and Men (2013) found information as the second most important motivation for the use of Facebook brand pages. This is in line with Tsai and Men (2017) who determined information as the most important motivation for Chinese Weibo users and the second most important motivation for American Facebook users. In addition, Li et al. (2019) found that Chinese NBA fans are more motivated by their information needs to use social media than US NBA fans.

Although most previous studies have found only an influence of information on consumption, this study examines the influence of information on all COBRAs. Since Muntinga (2013) and Muntinga (2016) indicate an influence on all three engagement levels, there could also be differences between local fans and international satellite fans in terms of the influence of information on contribution or creation.

By comparing local fans with international satellite fans it is noticeable that local fans have a greater access to media. While satellite fans are limited and have to get their information mainly from the internet (Ben-Porat, 2000; Pu & James, 2017), fans from the geographical proximity of the team can additionally access local media such as newspapers, radio broadcasts, or local television reports. Since international satellite fans, rather than satellite fans on a national market level, who have better media access than their international counterparts because they reside in the same country as their sports team, are being compared to local fans, the differences are likely to be particularly large. Thus, the following hypothesis is proposed:

**H4:** *The influence of information on the social media engagement activities (a) consumption, (b) contribution, and (c) creation is greater for international satellite fans than local fans.*

#### *3.3.3.5 Remuneration and Consumers' Online Brand-Related Activities*

Research on the influence of remuneration on COBRAs has again produced mixed results. Buzeta et al. (2020) found remuneration for all COBRA levels significant, but underline that there is a stronger impact on consumption and creation than on contribution. Other studies suggested only a significant effect



on contribution and creation (Piehler et al., 2019; Vale & Fernandes, 2018) or merely consumption (Muntinga et al., 2011) or creation (Muntinga, 2013, 2016; Yesiloglu et al., 2021). However, Tsai and Men (2013) found remuneration as the primary reason for using brand pages on Facebook. In addition, Tsai and Men (2017) identified it also as the most important motivation for American Facebook users. For Chinese Weibo users, however, remuneration is an unimportant motivation in comparison.

In general, rewards for social media engagement have proven to be a useful marketing tool (Rehnen et al., 2017). However, because the NHL has followed a centralised branding strategy and controlled the marketing and branding of their teams beyond a 100 miles (160 km) radius (Richelieu & Pons, 2009), geographically distant fans are not allowed to participate in remuneration activities such as raffles and contests (e.g. NHL, 2021a; Vancouver Canucks, 2022b). For example, only residents of British Columbia, Canada, may participate at raffles of the Vancouver Canucks. This leads to the following hypothesis:

**H5:** *The influence of remuneration on the social media engagement activities (a) consumption, (b) contribution, and (c) creation is greater for local fans than international satellite fans.*

#### **3.3.3.6 Empowerment and Consumers' Online Brand-Related Activities**

More consistent results were obtained by research on the influence of the empowerment motivation on different COBRA levels. Empowerment is labelled as a secondary motivation for creation by Muntinga (2016). Therefore, the majority of all studies found empowerment as a significant driver for

creation (Buzeta et al., 2020; Muntinga, 2013, 2016; Muntinga et al., 2011; Saridakis et al., 2016; Vale & Fernandes, 2018). In addition, empowerment was also identified to be a significant motivation for contribution (Buzeta et al., 2020; Saridakis et al., 2016; Vale & Fernandes, 2018). The study of Vale and Fernandes (2018) even indicated empowerment as the main motivation for contribution. Furthermore, it was noted by Buzeta et al. (2020) that empowerment can also drive the consumption level. In contrast, Yesiloglu et al. (2021) found no significant effect on COBRAs and the sample of Tsai and Men (2013) were also not motivated by empowerment. This is in line with Tsai and Men (2017), who found empowerment as an unimportant motivation for both Chinese and American social media users.

Even though most previous studies have only found the influence of empowerment on contribution and creation, this study also examines the influence on consumption. Since Buzeta et al. (2020) noted that consumption levels can also be influenced by empowerment, there could also be differences between local fans and international satellite fans.

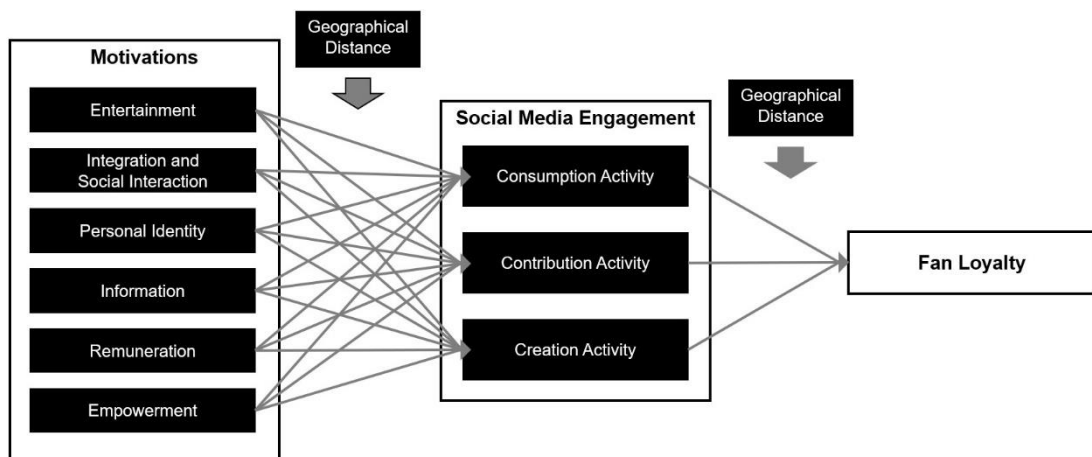
As satellite fans are aware that they are different to their local counterparts (Hognestad, 2006), they could be more reserved in convincing others of their opinions. Furthermore, Behrens and Uhrich (2020) found that local fans have a more positive attitude towards satellite fans when they engage in prototypical fan behaviour. This could lead to local fans teaching other fans via the internet what prototypical fan behaviour of their team means and what their opinions are. It was found by Rookwood and Millward (2011) that there was already little differences between the cultures of committed satellite and local fans.

They argued that this alignment could be driven by connecting these geographically distant fan groups through digital media. Consequently, the following hypothesis is proposed:

**H6:** *The influence of empowerment on the social media engagement activities (a) consumption, (b) contribution, and (c) creation is greater for local fans than international satellite fans.*

The three activity levels of social media engagement as well as their relationship to the six U&G motivations are incorporated into the emerging conceptual model below.

Figure 9: Emerging Conceptual Model with Social Media Engagement Levels (Version 4)



### 3.4 The Impact of Consumers' Online Brand-Related Activities on Fan Loyalty

#### 3.4.1 Fan Loyalty

The loyalty concept has attracted great interest not only from academics but also from professionals in the field of marketing (Cater & Zabkar, 2009). In loyalty research, the terms brand loyalty, team loyalty, consumer loyalty,

customer loyalty, and fan loyalty are often used interchangeably (e.g. Bristow & Sebastian, 2001; Kolbe & James, 2000). For example, Kaynak et al. (2008) try to differentiate between these terms by discussing different definitions of brand loyalty, team loyalty, and customer loyalty. Finally, however, all these terms are summarised under the concept of brand loyalty.

Research has shown that consumer loyalty should be an emphasis in the study of consumer behaviour (Lee et al., 2007; Oliver, 1999). As this study examines online behaviour and its related motivations of consumers (i.e. sports fans), this research is extended to include consumer loyalty of sports fans (i.e. fan loyalty).

Outside the sports fan literature, researchers have already determined that people who have an emotional attachment to a service or particular product are more likely to rate its brand more positively and conduct repurchases (e.g. Curtis et al., 2011; Havitz & Howard, 1995). The same is true for sports fans. As for any other brand, fan loyalty is important for the existence of professional sports leagues and clubs (Bristow & Sebastian, 2001). For example, it was highlighted by Sutton et al. (1997) that sports fans with a great identity and loyalty to their favourite team have a decreased price sensitivity. However, even though the loyalty patterns of sports fans are similar to those of customers of non-sporting companies, there are differences in the underlying explanatory factors (Tapp, 2004). These differences are grounded in the exceptional characteristics of the product sport, such as unpredictability and volatility (Mullin et al., 2007). For example, Bauer et al. (2005) identified brand image as a significant antecedent of fan loyalty. They found that non-product-

related attributes (e.g. fans, team logo and colours, or club tradition and history) of a sports team's brand are more important than product-related attributes (e.g. team members or team performance) to the loyalty of their fans. Especially the non-product-related brand attributes have a strong influence on attitudes and behaviour of sports fans (Bauer et al., 2008).

For these reasons, this study distinguishes the loyalty of consumers from the non-sporting industry from the loyalty of sports fans. The relationship between fans and their favourite sports team is at the heart of fan loyalty. It is defined as "an allegiance or devotion to a particular team that is based on the spectator's interest in the team that has developed over time. A loyal team fan does not desert the team when its win-loss record is not competitive" (Wakefield & Sloan, 1995, p. 159). Thus, even during unsuccessful times, a professional sports team has a significant number of core supporters who attend and watch their games (Bristow & Sebastian, 2001; Robinson, 2012), which underlines that the concept of loyalty "imports a broader meaning within sport than it does in non-sport industries" (Theysohn et al., 2009, p. 37). Nevertheless, it is possible that even fans who regularly attend and watch games are highly critical and fickle about their favourite team (Smith & Stewart, 2007). These different commitment levels of sports fans can be described by fan loyalty (Funk & James, 2001; Yoshida et al., 2014).

Early studies have attempted to measure loyalty primarily through consumer or fan behaviour, but this approach failed to explain why people repurchased specific products or services (Dwyer, 2011). The loyalty of individual sports fans was measured, for example, by behavioural indicators such as stadium

attendance, frequency of watching games on television, or purchases of fan merchandise (e.g. Funk et al., 2002; Hill & Green, 2000; Kwon et al., 2007; Robinson, 2012; Wann & Branscombe, 1993).

However, Day (1969) was the first to suggest that true loyalty is not only about consumer behaviours such as repurchases, but also about a great positive attitude towards a brand. On this basis, the concept of loyalty was adapted into a two-dimensional model consisting of both attitudinal and behavioural loyalty constructs. In later studies, It has been empirically proven that consumer loyalty indeed consists of these two separate but related dimensions (Backman & Crompton, 1991).

In addition, the loyalty segmentation model of Dick and Basu (1994) illustrates that loyalty consists of both dimensions. They divided consumer loyalty into no loyalty (e.g. low repeat purchases and competing brands are seen as similar), spurious loyalty (e.g. high repeat purchases triggered by discounts rather than a positive attitude towards the brand), latent loyalty (e.g. low repeat purchases but significant positive differences to other brands are perceived) and loyalty (e.g. high repeat purchases triggered by perceived significant differences to other brands). Therefore, true loyalty consist only of a combination of attitudinal and behavioural loyalty.

Figure 10: Loyalty Segmentation Model according to Dick and Basu (1994)

		<b>Repeat Patronage</b>	
		High	Low
<b>Relative Attitude</b>	High	<b>Loyalty</b>	<b>Latent Loyalty</b>
	Low	<b>Spurious Loyalty</b>	<b>No Loyalty</b>

Furthermore, it was revealed that neither attitudes nor behaviours are mutually exclusive, but their relation allows an appropriate understanding of fan loyalty (Gladden & Funk, 2001; Mahony et al., 2000). Consequently, both dimensions are applied in current fan loyalty research (e.g. Bauer et al., 2005; Bauer et al., 2008; Hart, 2017; Hong et al., 2005; Maderer et al., 2016; Maderer & Holtbrügge, 2019; McDonald et al., 2010; Wang et al., 2011; Yoon et al., 2017). Yet other fan loyalty studies still focus only on behavioural loyalty (e.g. Moital et al., 2019; Theodorakis et al., 2013; Yoshida et al., 2014) and thus ignoring the relation between attitudes and behaviours in loyalty research (Backman & Crompton, 1991; Gladden & Funk, 2001; Mahony et al., 2000).

An assessment that only investigates one dimension could lead to a misinterpretation, which is why only a composite measure of attitudinal and behavioural loyalty will unpack the actual level of fan loyalty (Funk & James, 2001). Therefore, attitudinal and behavioural loyalty are both investigated in this study and discussed in the following two subchapters.

### *3.4.1.1 Attitudinal Loyalty*

Attitudinal loyalty is an important dimension of fan loyalty as it outlines the psychological commitment of fans to their favourite sports team (Bauer et al., 2008; Dwyer, 2011). While some researchers consider attitudinal loyalty and psychological commitment as two different constructs (Heere & Dickson, 2008; Tachis & Tzetzis, 2015), other researchers use them interchangeably (Bauer et al., 2008; Funk & Pastore, 2000; Gladden & Funk, 2002; Mahony et al., 2000). Heere and Dickson (2008) criticise that this interchangeable usage became even more complicated when the terms commitment and loyalty were replaced by attachment and allegiance (e.g. Funk & James, 2001; Funk & James, 2006). Other studies examine characteristics of attitudinal loyalty under the term identification (e.g. Murrell & Dietz, 1992; Wann & Branscombe, 1993).

However, this study follows the description of Bauer et al. (2008), which puts attitudinal loyalty on the same level as psychological commitment. According to Beatty and Kahle (1988) this brand commitment is defined as an emotional or psychological attachment to a specific brand. The psychological commitment of sports fans can be determined based on three independent but interrelated components of inner attachment, resistance to change the team, and persistence of attitudes towards the team over time (Funk et al., 2000; Funk & James, 2001). Therefore, Bauer et al. (2005) and Bauer et al. (2008) both argue that sports fans have a high psychological commitment and thus also high attitudinal loyalty if they feel a deep inner attachment to their favourite team and this attachment is resistant to criticism, conflicting information or



experience, persists over a longer period of time, and is also expressed through a hope for a positive future of the team.

Consequently, it is important for sports teams to have a large number of fans with a high level of attitudinal loyalty. Through this inner attachment, sports fans not only remain loyal to their favourite team for years (Bristow & Sebastian, 2001; Robinson, 2012), but are also encouraged to positive consumption behaviour towards their team (Funk & James, 2001; Funk & Pastore, 2000; Tachis & Tzetzis, 2015). This consumption behaviour towards a team can be also described as behavioural loyalty, which is presented in the following subchapter.

#### *3.4.1.2 Behavioural Loyalty*

Behavioural loyalty is caused and influenced by the level of attitudinal loyalty of sports fans (Tachis & Tzetzis, 2015). This means that the higher the level of attitudinal loyalty of a sports fan is, the more positive consumption behaviour is displayed towards their favourite team. Bauer et al. (2008) based their behavioural loyalty definition on Homburg and Giering (1999) who stated that it encompasses past behaviour and behavioural intentions. While past behaviour includes the buying behaviour and positive word-of-mouth (i.e. positive communication about the favourite team) of a fan in the past, behavioural intentions represent the future behaviour of a sports fan (Bauer et al., 2008; Homburg & Giering, 1999). In that sports fan context, Shapiro et al. (2013) found that past behaviour predicts their future behavioural intentions.

On the basis of several fan loyalty studies Bauer et al. (2005) and Bauer et al. (2008) summarised past and intended loyalty behaviour of sports team fans

into different activities: Attending live games at the stadium, watching games on TV, consuming other media related to the favourite team, buying fan merchandise, wearing the team's logo or colours, participating in discussions about the favourite team, and attempting to convince others to support the favourite team are all evidence of loyal sports fan behaviour (Fink et al., 2002; Funk & Pastore, 2000; Gladden & Funk, 2001; Mahony et al., 2000; Shank & Beasley, 1998). As sponsors are highly important in today's professional sports business, behavioural loyalty also includes the sports fans purchase behaviour from companies that support their favourite team (Maderer & Holtbrügge, 2019). Therefore, behavioural loyalty also represents the repeated purchase consumption of sports fans towards their favourite team and its sponsors.

In a previous subchapter (chapter 3.4.1) it was already highlighted that earlier studies measured loyalty primarily by behavioural indicators such as stadium attendance, frequency of watching games on television, or purchases of fan merchandise (e.g. Funk et al., 2002; Hill & Green, 2000; Kwon et al., 2007; Robinson, 2012; Wann & Branscombe, 1993). However, according to Gladden and Funk (2001), besides the disregard for attitudinal loyalty, there are additional limitations to measure loyalty solely on behaviour. It is possible that factors such as cost, time, or job-related requirements prevent the fan from purchasing tickets regularly despite high loyalty (Biscaia et al., 2017; Gladden & Funk, 2001). In addition, a distinction must be made between behavioural loyalty and spurious loyalty (Backman & Crompton, 1991; Day, 1969). Because spurious loyalty constitutes only situational buying behaviour that is not caused by a strong attitude towards the brand (Dick & Basu, 1994), sports

teams may experience increased consumption of their games and merchandise during successful seasons. But as soon as the sports team is no longer successful, the overall consumption of less loyal spectators and fans will decrease again (Gladden & Funk, 2001).

Furthermore, measuring loyalty only through behavioural constructs leads to particularly high inaccuracies with satellite fans. These fans experience a more difficult team-related consumption due to geographical distance as well as language and time differences (Kerr & Gladden, 2008; Pu & James, 2017). Consequently, it is not suitable to measure a fan's devotion and loyalty to their favourite club based solely on consumer behaviours such as game attendance (Kitchin, 2012). This is consistent for example with the findings of Murrell and Dietz (1992), who found that fan support for a particular team can be strong regardless of actual fan attendance.

However, even if satellite fans' team-related consumption is limited in comparison to local fans, they have similar opportunities to express their loyalty through digital media. Previous studies have already shown that online engagement can influence loyalty (e.g. Fernandes & Castro, 2020; Jayasingh, 2019; Núñez-Gómez et al., 2020). Therefore, the following subchapter discusses the relationship between COBRAs and fan loyalty.

#### 3.4.2 The Relationship between Consumers' Online-Brand Related Activities and Fan Loyalty

Since there is limited research on the relationship between social media and customer loyalty (Lee et al., 2018), there are also only few studies in the literature that have explored the relation between consumers' online-brand

engagement and its effect on loyalty. Maslowska et al. (2016), for example, suggested with their customer engagement ecosystem model, which includes various forms of engagement and thus also social media engagement, that customer engagement can lead to increased loyalty. However, researchers are still hesitate about the relationship between different online engagement behaviours in social media-based brand communities and loyalty (Munnukka et al., 2015). Therefore, this chapter discusses various studies that have investigated this relationship.

Definitions of engagement can be divided into psychological and behavioural focused concepts, with other definitions including both (Maslowska et al., 2016). Some studies that examine the relationship between social media engagement and loyalty divide customer brand engagement into cognitive, affective, and behavioural brand engagement. Different results have emerged from these studies. While some found no significant influence from social media engagement on brand loyalty (Fernandes & Inverneiro, 2020; Li et al., 2020), others have found an effect on it (Dessart, 2017; Helme-Guizon & Magnoni, 2019).

However, as this study investigates social media engagement in form of the COBRAs framework, the focus is on behavioural online engagement. The author is only aware of one study that examined the impact of social media engagement on loyalty based on the COBRAs framework. Mishra (2021) found no influence of COBRAs on brand loyalty. In his study, however, he combined the different COBRA levels into one construct, which means that the influence of the individual activity levels were not investigated.

In order to be able to discuss further literature for the hypothesis formation, additional studies were consulted that examine the connection between social media engagement and loyalty, but are not based on the COBRAs framework. For example, Jayasingh (2019) has combined different online behaviours such as reading and liking brand-related posts or the posting of own brand-related content into the construct consumer engagement. Although the composition is similar to the COBRA construct of Mishra (2021), the opposite results were found. According to Jayasingh (2019), consumer engagement in social media strongly increases brand loyalty. Furthermore, both studies only measure the influence on brand loyalty as one factor, thus disregarding possible differences in influence on attitudinal and behavioural loyalty. Hawkins and Vel (2013), for example, suggested that social media may influence customers' attitudinal loyalty rather than behavioural loyalty.

Other studies have not combined social media engagement into one construct but have examined the influence of different online activity levels on loyalty (e.g. Fernandes & Castro, 2020; Núñez-Gómez et al., 2020; Van Asperen et al., 2018). This division into different activity levels is similar to the COBRAs framework. In addition, some of these identified studies explicitly distinguish between attitudinal and behavioural loyalty (e.g. Van Asperen et al., 2018; Yoshida et al., 2018; Zheng et al., 2015), while others measure brand loyalty as a single factor (e.g. Fernandes & Castro, 2020; Núñez-Gómez et al., 2020). The results of these studies have been categorised into the consumption, contribution, and creation activity levels of the COBRAs framework and are discussed in the following subchapters.

#### *3.4.2.1 Consumption Activity Level and Fan Loyalty*

Two of the identified studies investigated the influence of consumption behaviour in social media on loyalty. It was found by Van Asperen et al. (2018) that a passive social media engagement (i.e. watching videos, viewing pictures, and reading posts) has an impact on attitudinal loyalty. They subdivided attitudinal loyalty in affective (i.e. attachment to a person or an organization) and conative (i.e. willingness to act or behavioural intentions) loyalty elements. While a positive relationship between consuming activities and affective loyalty was identified in this study, no significant relationship was found between consuming activities and conative loyalty. They concluded that higher levels of consumption activities may positively impact the consumers' affective loyalty towards a brand.

Similar results were obtained by Fernandes and Castro (2020). They found a positive relationship between lurking activities (i.e. follow a brand, read posts, and view pictures) and brand loyalty. Lurking even had a stronger influence on brand loyalty than posting activities (comparable to the creation activity level in the COBRAs framework) in social media. However, their study did not include a contribution activity level, meaning that these activities were split into engagement levels of lurking and posting. Thus, in their study lurking also includes the liking of posts on social media, which according to the COBRAs framework is assigned to the contribution activity level.

Since the consumption activity level has thus been shown to have an influence on loyalty, this study compares its influence on fan loyalty between local fans and international satellite fans. Since satellite fans are limited in their media

choices and often only have access to their favourite team through digital media, they rely on social media (Ben-Porat, 2000; Li et al., 2017; Pu & James, 2017), unlike local fans. Therefore, digital media was labelled as an important socialization agent for satellite fans (Phua, 2010; Pu & James, 2017). In addition, Chen (2011) already demonstrated that social media can develop a feeling of connection, which could be represented by attitudinal loyalty (Bauer et al., 2008; Dwyer, 2011). However, as international satellite fans, unlike local fans, are restricted in their overall consumption of their favourite team (e.g. low access to fan merchandise or kick-off times in the middle of the night) (Ben-Porat, 2000; Pu & James, 2017), this could hinder the influence on their behavioural loyalty. This leads to the following hypothesis:

**H7:** *The influence of consumption social media engagement activities (a) on attitudinal loyalty is greater for international satellite fans than local fans and (b) on behavioural loyalty is greater for local fans than international satellite fans.*

#### *3.4.2.2 Contribution Activity Level and Fan Loyalty*

Three of the identified studies examined the influence of the contribution activity level on loyalty. These studies have achieved different results. No significant relationship was found by Van Asperen et al. (2018) between active social media engagement (i.e. engaging in conversations, sharing posts, or recommending a specific brand page to social media contacts) and attitudinal loyalty. In their study, active social media engagement also included uploading brand content, which according to the COBRAs framework is assigned to the creation activity level. However, since most of the behaviours in the active

social media engagement item battery of Van Asperen et al. (2018) represent contribution activities, it was included in this subchapter. In contrast, Zheng et al. (2015) found that participation (i.e. post messages and comments or helping others with brand information) in social media brand communities leads to the development of attitudinal loyalty.

In terms of behavioural loyalty, Yoshida et al. (2018) determined that brand related social media engagement (i.e. liking and sharing brand-related content, or commenting on conversations and posts) has a positive influence on behavioural loyalty, highlighting that online contribution activities are an essential precondition for actual purchasing behaviour. In that study, even professional team sports fans of the sports football and baseball were explicitly examined, which makes these results particularly significant for this study. However, in that study brand related social media engagement includes not exclusively contribution activities. It also includes the posting of brand related photos, which according to the COBRAs framework is part of to the creation activity level. Again, since most of the behaviours in the brand related social media engagement item battery of Yoshida et al. (2018) represent contribution activities, it was included in this subchapter.

As the above-mentioned studies have demonstrated that there is an effect of the contribution activity level on attitudinal and behavioural loyalty, this influence will be compared between local and international satellite fans in this study. In general, contribution activities such as liking or commenting allow sports fans to engage more deeply with their favourite team and other fans, rather than just consuming content. Consequently they could feel a deeper



connection to their favourite team by contributing to brand-related content (Chen, 2011). Because international satellite fans are, unlike local fans, dependent on digital media (Kerr & Gladden, 2008; Li et al., 2017; Pu & James, 2017), this influence on their attitudinal loyalty may be even stronger among them. In terms of behavioural loyalty, it can again be noted that local fans have significantly more purchase and consumption options for their favourite sports team than international satellite fans (Ben-Porat, 2000; Pu & James, 2017). This generally limits the influence of social media on the behavioural loyalty of international satellite fans. In addition, NHL teams encourage contribution activities such as liking and commenting through various contests, but only local fans are allowed to participate (e.g. NHL, 2021a; Vancouver Canucks, 2022b). Consequently, the following hypothesis is proposed:

**H8:** *The influence of contribution social media engagement activities (a) on attitudinal loyalty is greater for international satellite fans than local fans and (b) on behavioural loyalty is greater for local fans than international satellite fans.*

#### *3.4.2.3 Creation Activity Level and Fan Loyalty*

Two of the identified studies investigated the influence on the creation activity level on loyalty. Fernandes and Castro (2020) found a positive relationship between posting activities (i.e. posting of brand-related content) and brand loyalty. However, as already stated in chapter 3.4.2.1, in their study posting activities influence on brand loyalty was not as strong as consumption activities. Furthermore, it must also be emphasised that posting activities include not exclusively creation activities. It also includes commenting and

sharing of brand related content, which according to the COBRAs framework is part of to the contribution activity level.

Also Núñez-Gómez et al. (2020) found a positive relationship between the creation activity level and brand loyalty. They studied children in the age between eight and 14 and found that interacting with a brand via social media in the form of uploading self-created brand-related content increases the child's loyalty to the brand. A particularly strong effect was found among 12- to 14-year-olds. These findings support the assumption that digital media can serve as sports brands socialisation agent for sports fans (Pu & James, 2017), but could have a particularly strong effect on children. Therefore, through the influence of digital media and the internationalisation process of sports brands, children and young people could develop more easily to the first generation of satellite fans in a targeted foreign country. Especially since their fandom is not yet as settled as that of older sports fans, most of whom have supported their favourite sports team for many years.

However, as previous study demonstrated that social media creation activities have an influence on loyalty, this study compares this influence between local fans and international satellite fans. It was already suggested that satellite fans may be more reserved in their creation activities as they are aware that they are different to their local counterparts (Hognestad, 2006) and therefore do not want to post anything inappropriate. In addition, geographically distant NHL fans are also denied to participate in official online competitions of their favourite team (e.g. NHL, 2021a; Vancouver Canucks, 2022b), which could require them to post some content in order to participate. Therefore, it is

assumed that the creation activity level is less applied by international satellite fans and thus have a lower impact on their attitudinal and behavioural fan loyalty.

In contrast, local fans are assumed to engage more often in creation activities, as they are fluent in the language of their favourite team's country, have no time difference, receive team-related information faster, can easier attend games of their team, and are allowed to participate in official online competitions (e.g. NHL, 2021a; Vancouver Canucks, 2022b). Thus, they have a better foundation, have more opportunities to create content about their team, and are more likely to be encouraged to engage in creation activities than their international counterparts. For example, Rehnen et al. (2017) found that customers who participate in social media contests that require content creation to win rewards have higher loyalty than customers who do not participate. Based on all these considerations, the following hypothesis is proposed:

**H9:** *The influence of creation social media engagement activities is greater for local fans than international satellite fans on (a) attitudinal loyalty and (b) behavioural loyalty.*

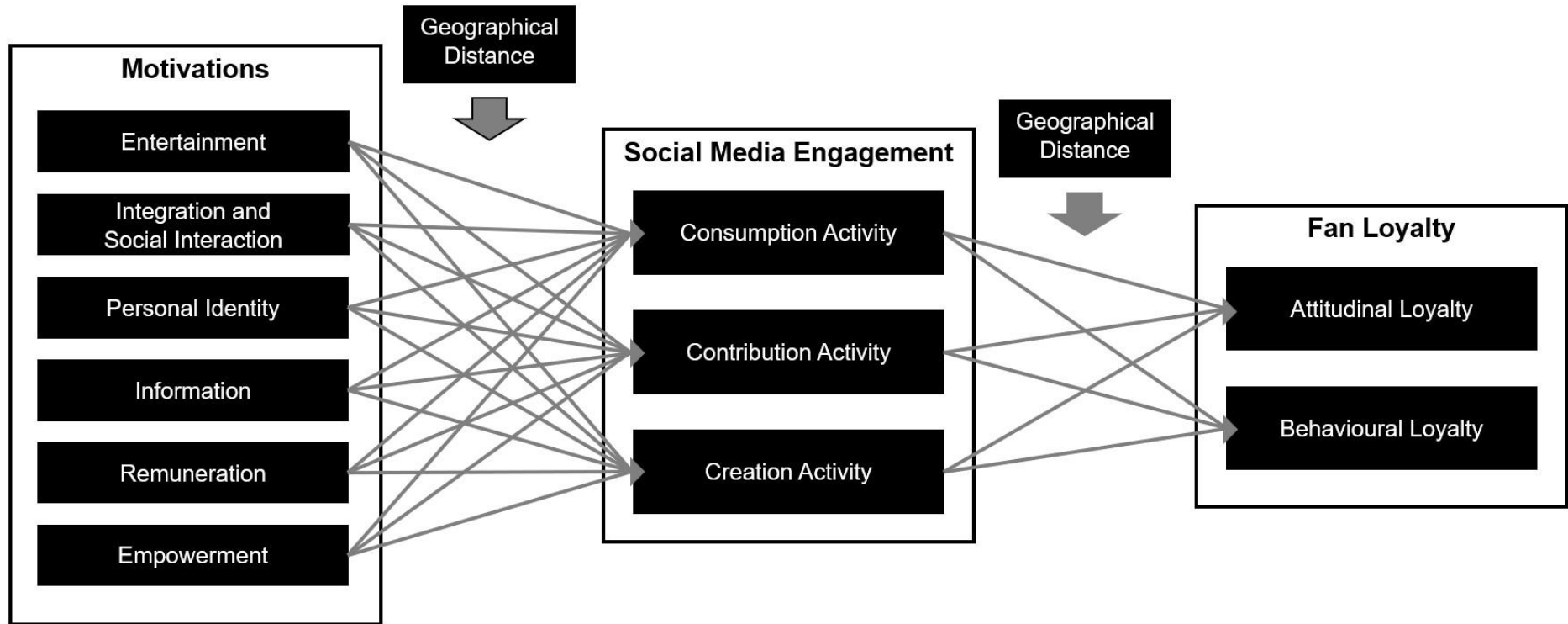
### 3.5 Summary of the Entire Conceptual Model

Within this chapter, the U&G theory on which this study is based and the elements of the conceptual model were presented and discussed. It was shown that motivations for social media use split up into entertainment, integration and social interaction, personal identity, information, remuneration, and empowerment (Muntinga et al., 2011), social media engagement includes

the online activity levels of consumption, contribution, and creation (Muntinga et al., 2011; Shao, 2009), and fan loyalty consists of attitudinal and behavioural loyalty (Bauer et al., 2005; Bauer et al., 2008). Geographical distance was included as a moderator in the conceptual model to compare local and international satellite fans. The factors and moderator presented are combined to the final conceptual model of this study, which is illustrated on the following page.

The current state of research on the relationships between the individual factors shown in the final conceptual model was also presented in this chapter. On this basis, research hypotheses were formulated, which are investigated in this study. In order to test these hypotheses, the next chapter presents the methodology of this study as well as the development of the questionnaire and implementation of data collection.

Figure 11: Conceptual Model of this PhD Thesis (Final Version)



## **4 Methodology**

### **4.1 Chapter Overview**

This chapter introduces the research design of this study which is influenced by the epistemology and theoretical perspective of the researcher. On the basis of the epistemology of objectivism and the research philosophy of positivism, the conceptual model and the hypotheses are tested. Therefore, a quantitative, deductive, and cross-sectional approach is considered the most appropriate for this research. Consequently, an online survey, snowball sampling, and a statistical analysis of the collected numerical data are the applied methods of this study.

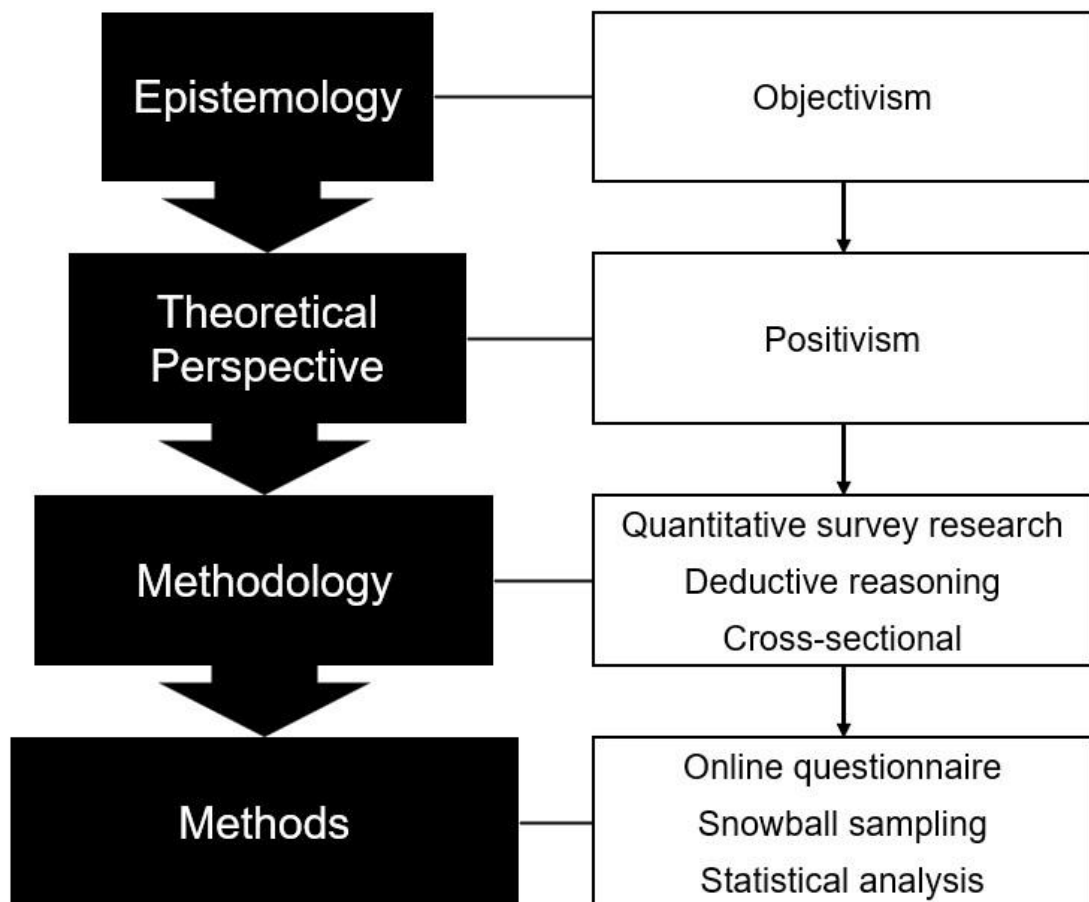
Furthermore, this chapter discusses the development of the survey. This includes the overall structure of the questionnaire, the adaption of the scales as well as the translation and pre-testing process. In addition, the population of local and satellite fans to be surveyed is precisely defined. The snowball sampling method and the data collection procedure are then presented. This chapter concludes with a description of the statistical data analysis and ethical considerations.

### **4.2 Research Design**

The traditional model of science assumes that researchers start from a theory and derive hypotheses from it, which are then tested to answer the research question (Babbie, 2020). This process was already followed in the previous chapter 3, but a research design is also needed before testing the theory and associated hypotheses. The required research design consists of uniform

assumptions, also known as epistemology, which form a corresponding theoretical perspective and research philosophy. This research philosophy then leads to methodological choices as well as decisions about research strategy, data collection procedure, and data analysis (Saunders et al., 2016). The four elements of epistemology, theoretical perspective, methodology, and methods were combined by Crotty (1998) into a model for research design. The hierarchy of the individual elements and their interrelationship are illustrated in this research design model. Crotty's (1998) model is applied in this study to determine its research design. Therefore, the research design model of Crotty (1998) as well as the research design assumptions of this study are presented in the following figure.

Figure 12: Outline of the Research Design according to Crotty (1998)



The figure demonstrates that the researcher follows the epistemological view of objectivism. This view is the epistemological basis of the positivist stance. In the positivist stance, it is then appropriate to conduct quantitative survey research with deductive reasoning. For this methodology, the methods of an online questionnaire, snowball sampling, and a statistical analysis are applied (Crotty, 1998). The results of the statistical analysis are then used to answer both research questions. In the following subchapters, the individual elements of the research design are described and discussed in more detail.

#### 4.2.1 Epistemology

According to Crotty's (1998) research design model, researchers first adopt a certain stance towards the nature of knowledge and reality. This stance or epistemology then forms the basis of the research design and influences the choice of theoretical perspective. Therefore epistemology is defined as "the theory of knowledge embedded in the theoretical perspective and thereby in the methodology" (Crotty, 1998, p. 3). Also Maynard (1994) emphasises that epistemology provides a philosophical basis for deciding what kinds of knowledge are possible and how to ensure that they are appropriate and legitimate. In the multidisciplinary context of business research, this means that there are different types of knowledge, such as numerical, textual, or visual data, which can all be considered legitimate (Saunders et al., 2016). Thus, the type of knowledge to be discovered in a study depends on the researcher's assumptions about the nature of knowledge and reality. Consequently, epistemology influences the methods of knowledge discovery.



Objectivism, constructionism, and subjectivism are the three major stances of epistemology (Crotty, 1998). Objectivism adopts assumptions of natural scientists and argues that there is only one universal true reality. It also suggests that the research's social reality is external to the researcher and others. This stance assumes that the social world consists of granular things and order. The objectivist view thus objectifies the understandings and values of the people being studied to discover the objective truth (Crotty, 1998; Saunders et al., 2016).

Constructionism, in contrast, rejects that there is an objective truth waiting to be discovered by the researcher. This stance assumes that meaning is constructed through human engagement with the realities of the world. Therefore, meaning is not discovered, but constructed by human minds. This means that constructionism considers that the generation of meaning happens in general through the emergence of subjects and objects as partners (Crotty, 1998).

Subjectivism forms the opposite extreme to objectivism. This stance adopts assumptions of the arts and humanities and argues that there are multiple realities. It suggests that the research's social reality is socially constructed as it is made from the perceptions and actions of people (Saunders et al., 2016). Subjectivism assumes that the meaning of an object comes from something other than the object to which the meaning is attributed. Thus, the object as such does not contribute to the generation of meaning (Crotty, 1998).

As mentioned earlier in this subchapter, epistemology depends on the researcher's world view and assumptions about the nature of knowledge and

reality. The author of this study assumes only one universal true reality, views the social world in granular things and thus sees truth and meaning inside of objects. Furthermore, the author follows the idea that human values and knowledge are objective. Consequently, the objectivistic paradigm has been applied in this research (Crotty, 1998; Saunders et al., 2016). Therefore, knowledge about the motivations for social media engagement and its influence on sports fans' loyalty is considered to be discoverable and objective.

In addition to the author's worldview, this study follows the objectivistic paradigm for three other, more practical reasons. The first reason lies in the objective of this study, which aims to outline statistical distinctions between local and international satellite fans. Existing literature that conducts comparisons between different groups of people often takes an exclusively objectivist stance and applies quantitative survey research (e.g. Chambel et al., 2016; Floh & Treiblmaier, 2006). But also extant literature that investigates U&G motivations and the COBRAs framework (e.g. Mishra, 2021; Piehler et al., 2019) or the influence of social media engagement on loyalty (e.g. Jayasingh, 2019; Lim et al., 2015; Zheng et al., 2015) also follow objectivism and quantitative research.

The second reason is because of the construction of the conceptual research model of this study. The conceptual model is based on the COBRAs framework and its U&G motivations (Muntinga et al., 2011). This model is generalisable and therefore represents a universal reality. It has already been applied to various groups of people such as banking customers (Mishra, 2021) or sports fans (Vale & Fernandes, 2018). Therefore, the conceptual model of

this study is also generalisable and could be applied outside of sports fans by replacing fan loyalty with brand loyalty and adjusting moderators for geographical distance.

Finally, existing literature widely uses objective measures for the various U&G motivations (e.g. Fernandes & Castro, 2020; Vale & Fernandes, 2018), social media engagement activity levels (e.g. Buzeta et al., 2020; Schivinski et al., 2016), and fan loyalty dimensions (e.g. Maderer & Holtbrügge, 2019; Yun et al., 2020). The item batteries and Likert scales of these objective measures from the extant literature are also applied in this study to measure the factors of the model. These observable measures are used to explore the truth about the social world and to draw generalisations about the universal social reality (Saunders et al., 2016). Consequently, this study supports and rejects its underlying theory, model, and hypotheses only on the basis of empirical findings, which is in line with the objectivistic paradigm. The theoretical perspective of this study will be described in the next subchapter.

#### 4.2.2 Theoretical Perspective

The theoretical perspective describes the research philosophy that informs the methodology and thus guides the methods and process of the study (Crotty, 1998). It is therefore a philosophical framework that serves as a guidance for the researcher on how scientific research should be conducted (Collis & Hussey, 2014). In the literature, however, a multitude of different terms are used for the theoretical perspective. It is also referred to as paradigm (Babbie, 2020; Collis & Hussey, 2014; Guba, 1990; Mertens, 2010), philosophical

worldviews (Creswell & Creswell, 2018), or epistemologies and ontologies (Crotty, 1998).

For researchers there are three assumptions to distinguish between the different research philosophies: ontology, epistemology, and axiology (Saunders et al., 2016). These assumptions shape how a researcher understands the research questions, methods, and findings (Crotty, 1998). Ontology is the study of being. It is concerned with the nature of reality and existence. Ontology thus involves assumptions about the world and about what kind of research is chosen (Crotty, 1998; Gray, 2017; Saunders et al., 2016). While ontology represents the understanding of what reality is and what we know, epistemology seeks to understand what it means to know (Gray, 2017; Guba & Lincoln, 1994). Epistemology evaluates knowledge and provides a philosophical background for what is appropriate and legitimate knowledge (Gray, 2017; Saunders et al., 2016). In contrast, axiology is concerned with the values and ethics in the research process. Since the choice of a philosophy reflects the values of a researcher, axiology describes which values are included in the research (Saunders et al., 2016).

In general, researchers have a wider choice of theoretical perspectives and philosophies. The two main and also most contrasting of these paradigms are positivism and interpretivism (Collis & Hussey, 2014). While positivism assumes that reality is objective and that knowledge can only be gained through scientific methods, interpretivism assumes that reality is subjective and that interpretations are the most important source of knowledge to uncover multiple realities. These two paradigms are both applied in business and

management research. However, when business and management emerged as a research field, it drew its theoretical foundation from a mixture of sciences. Therefore, the paradigms of critical realism, postmodernism, and pragmatism are also frequently used in this academic discipline (Saunders et al., 2016). The five major research philosophies in the field of business and management, namely positivism, critical realism, interpretivism, postmodernism, and pragmatism, are summarised in appendix 8.2 in terms of their ontological, epistemological, and axiological assumptions as well as their typical methods.

The theoretical perspective associated with objectivism is positivism (Crotty, 1998) and is therefore also chosen in this study. Positivism has its origins in natural science and in the works of Francis Bacon, Auguste Comte, and the group of scientists and philosophers of the early twentieth century known as the Vienna Circle (Collis & Hussey, 2014; Saunders et al., 2016). From the 1930s to the 1960s it was the dominant epistemological paradigm in the social sciences (Gray, 2017). According to a positivist point of view, objects in the world have a meaning prior to and independently of any consciousness about them (Crotty, 1998). Since positivism suggests that reality consists of what is accessible to the senses (e.g. what can be seen, touched, or smelled), and since the natural and human sciences also share common logical methodological principles, research should be conducted with facts and not values (Gray, 2017).

Consequently, positivism assumes a value-free, singular and objective social reality that is not influenced by the act of investigating it (Collis & Hussey, 2014; Easterby-Smith, 2018; Mertens, 2010). Thus, it argues that the social world

can be studied in the same way as the natural world and that its rules can be scientifically discovered (Babbie, 2020; Mertens, 2010). This includes strictly scientific empiricist methods that aim to provide pure data and facts that are not influenced by human interpretation or bias. For this reason, positivist research is usually characterised by deductive approaches, large samples, and quantitative methods (Saunders et al., 2016).

As the author follows a objectivistic worldview, a deductive approach is conducted in this study. Therefore, the hypotheses are developed on the basis of existing theories and a review of the literature (O'Reilly, 2009). The hypotheses for the causal relationships between different factors are then tested with large samples and quantitative methods. This approach is especially appropriate for a positivistic study. Furthermore, the researcher is independent and unaffiliated with the study and can therefore conduct a value-free and unbiased research. In particular, the attribution of objectivity and generalisability of the quantitative results turn this research into a positivist study. The following subchapter therefore presents the quantitative methodology used in this study.

#### 4.2.3 Methodology

As noted previously, epistemology and the theoretical perspective of the research design determine the methodology and research method of a study (Crotty, 1998). A methodology is an approach to the research process that includes a range of methods (Collis & Hussey, 2014). It deals with the question of how researchers can find out what they think can be known (Guba & Lincoln, 1994). In this study, the choice of objectivism as epistemology and the

positivist stance of the theoretical perspective lead this research towards a quantitative methodology.

While quantitative research collects numerical data, qualitative research gathers words, images, or artifacts, and mixed methods research uses both types of data (Mertens, 2010). Of these different approaches, the quantitative research approach in particular is associated with positivism (Saunders et al., 2016). This is because objective theories are tested by examining the relationships between constructs using the collected numerical data and statistical procedures (Collis & Hussey, 2014; Creswell & Creswell, 2018). This study also examines causal relationships, namely the influence of U&G motivations on social media engagement and its impact on fan loyalty. All constructs of U&G motivations, social media engagement levels, and fan loyalty, which are included in the conceptual model, can be measured with instruments. Thus, the numerical data can be analysed with statistical methods.

The hypotheses tested in this study are derived from existing theory. As already mentioned in the previous chapter, the theory is thus tested deductively (O'Reilly, 2009). While a deductive research approach tests theories based on data, an inductive approach develops theories from observation of empirical reality, and an abductive approach combines both approaches by moving back and forth between theory and data (Babbie, 2020; Collis & Hussey, 2014; Saunders et al., 2016).

Furthermore, this research can be classified as a cross-sectional study, as it investigates a specific phenomenon at a specific time and thus does not

examine change or development as in a longitudinal study (Rindfleisch et al., 2008). Therefore, in cross-sectional studies, there is no time dimension, as the data collected refer around the time of data collection, which may be several months (Kesmodel, 2018). The following subchapter presents the applied methods that result from the methodology chosen and discussed here.

#### 4.2.4 Method

The research methods of a study are determined by the chosen methodology (Crotty, 1998). A method is a research technique or procedure used to collect and analyse data related to the research questions and hypotheses (Collis & Hussey, 2014; Crotty, 1998). In this research, the quantitative methodology guides this study towards the method of survey research and statistical analysis. Survey research is one of the main quantitative approaches and is being regarded as positivistic by nature (Creswell & Creswell, 2018; De Vaus, 2014). Since positivists adopted their experimental methods from the natural sciences (Mertens, 2010), the methodology, if one follows the paradigm of positivism, suggests the analysis of survey data from large samples (Easterby-Smith, 2018).

Moreover, the aim of this study is to empirically evaluate and compare the motivations for social media engagement and its impact on fan loyalty between local and international satellite fans. For these multi-group comparisons, the method of survey research is often used to obtain large samples of different groups, then compare the collected data and test them for moderation by using statistical procedures (e.g. Chambel et al., 2016; Floh & Treiblmaier, 2006; Sihombing, 2012). In addition, the use of an online survey is a beneficial way



for the researcher to target geographically distant populations (Sue & Ritter, 2012), reach participants during COVID-19 lockdowns that also took place during the duration of this study (Leighton et al., 2021), and ensure rapid data collection (Creswell & Creswell, 2018). The online survey is distributed using a snowball sampling method, which is particularly suitable for reaching hidden or hard-to-reach populations, such as satellite fans (Dosek, 2021; Faugier & Sargeant, 1997; Sadler et al., 2010). The implementation of the survey research method and an overview of the statistically survey data analysis is presented in the following subchapters.

### 4.3 Implementation of the Survey Research Method

A quantitative study design is used to answer both research questions. While the first research question asks how the motivations for social media engagement with a favourite team are different between international satellite fans and local fans, the second research question questions how the impact of social media engagement activities with a favourite team on fan loyalty differs between international satellite and local fans. To investigate these research questions, the U&G theory was already examined in chapter 3.2.1. The following subchapters discuss the creation and implementation of the survey. The survey will be used to generate quantitative data on U&G motivations, social media engagement activity levels, and attitudinal and behavioural fan loyalty, which will then be used for statistical analysis.

#### 4.3.1 Structure of the Questionnaire

Questionnaires are research instruments in which respondents are asked a series of questions about an object of study, and the researcher later obtains

data from the completed questionnaires (Bell et al., 2018). Unlike an interview, questionnaires, especially online questionnaires, do not give respondents the opportunity to have the researcher clarify the questions. Thus, the questionnaire and its items must be particularly easy to understand and to answer as the goal of the research instrument is to obtain accurate data (Thoms & Kellerman, 1995). It is also important that the questionnaire is not too long, so that the participants lose interest in it (Bell et al., 2018). To ensure that the questionnaire is understandable and not too long, but also that all constructs are queried, special emphasis was placed on the design and structure of the questionnaire. For example, only closed questions were included in the questionnaire, as they are easier and faster for the participants to complete (Bowling & Ebrahim, 2005). Thus, there was less risk that the questionnaire would be too long or that respondents would be confused.

The survey started with an introduction that stated the project title, name of the principle investigator, an overview of the survey's content, and a standard statement about their rights. After that, up to four filter and screening questions were presented. Participants were asked to name their favourite NHL team and indicate whether they use the social media channel Instagram to follow their favourite team and/or other related accounts. Those who indicated they are not interested in the NHL, do not use Instagram for this purpose, or do not use Instagram at all were directed to the end of the survey. The remaining participants were also questioned about their current country of residence. Participants who indicated "USA" or "Canada" (both countries that are home to NHL teams) were asked to indicate the geographic distance of their residence to their favourite team's current home arena. Based on the answers

to the geographic screening questions, the participants could later be divided into the groups of local, national and international satellite fans. If participants indicated that they currently reside more than 100 miles (160 km) away from their favourite team's home arena, they were also asked if they used to reside 100 miles (160 km) or closer (100 miles radius is used by NHL and NFL to define the local market of their teams (Collins et al., 2016; Richelieu & Pons, 2009)). In this way, it can be determined whether the satellite fan is a displaced fan.

After the screening questions, the survey asked about the motivations for social media engagement, COBRA levels, and fan loyalty. This was divided into three parts. The first part asked about the six U&G motivations of entertainment, integration and social interaction, personal identity, information, remuneration, and empowerment. The second part surveyed the three COBRA levels of consumption, contribution, and creation, and the third part included questions about attitudinal and behavioural loyalty. In order to make the questionnaire clearer for the participants, all item batteries were given the same structure. Pre-validated scales were used for all constructs. The adaptation of these scales is described in detail in the next subchapters.

The questionnaire ended with four demographic questions about gender, age, education level, and current employment status as well as contact details of the principal investigator. The questionnaire consisted of 59 questions in total which covered screening and demographic information as well as 11 constructs. Each question was set as mandatory in the JISC online survey program, so only fully answered questionnaires were included in the analysis.

To avoid forcing respondents to provide inappropriate information in the closed-ended questions (Bowling & Ebrahim, 2005), evasive response options were offered, such as "Prefer not to say" for the demographic questions. An overview of the entire questionnaire can be found in the appendix (see appendix 8.3).

#### 4.3.2 Adaption of the Scales

Churchill (1979) suggested a procedure for developing better scales and measures. According to the first step of this procedure, the researcher should specify the domain of the construct in a literature review. In this step he claims that "researchers should have good reasons for proposing additional *new* measures given the many available for most marketing constructs of interest" (Churchill, 1979, p. 67). This study takes this claim into account and uses pre-validated scales of the many available, as this is also done by most of today's research (Hair et al., 2014). The literature review showed that there are already numerous scales for U&G motivations, COBRA levels, and loyalty. Some of these scales were even tailored specifically for sports fans. Therefore, the pre-validated scales, required little to sometimes even no adjustment for the context of this study. The adaption of the scales is detailed in the following paragraphs.

A multitude of different scales were considered for the motivations of entertainment (e.g. Buzeta et al., 2020; de Silva, 2019; Papacharissi & Rubin, 2000; Vale & Fernandes, 2018), integration and social interaction (e.g. Hur et al., 2007; Tsai & Men, 2013, 2017; Vale & Fernandes, 2018), personal identity (e.g. Buzeta et al., 2020; de Silva, 2019; Fernandes & Castro, 2020; Vale &

Fernandes, 2018), information (e.g. Jayasingh, 2019; Seo & Green, 2008; Vale & Fernandes, 2018; Witkemper et al., 2012), remuneration (e.g. Fernandes & Castro, 2020; Gummerus et al., 2012; Seo & Green, 2008; Vale & Fernandes, 2018), and empowerment (e.g. Buzeta et al., 2020; Tsai & Men, 2013, 2017; Vale & Fernandes, 2018). However, in the screening process, the scales of Vale and Fernandes (2018) and Fernandes and Castro (2020) stood out because of their inner consistency, number of items and the sample for which they are adapted. Their scales are introduced in the following paragraph.

Vale and Fernandes (2018) examined various U&G motivations of football fans for engagement on Facebook. From their study, the item batteries used are entertainment, integration and social interaction, information, remuneration, and empowerment. They adapted their scales based on established U&G and sports fan literature (entertainment (Hur et al., 2007; Seo & Green, 2008); integration and social interaction (Baldus et al., 2015; Muntinga, 2013); information (Hur et al., 2007; Park et al., 2009); remuneration (Baldus et al., 2015; Seo & Green, 2008); empowerment (Baldus et al., 2015; Muntinga, 2013)) and validated them on a sample of 562 football fans. Furthermore, the questionnaire of this study used a pre-validated item battery from Fernandes and Castro (2020) for the U&G motivation personal identity. They adapted the item battery from Cheung and Lee (2012) and validated it with a sample of 213 respondents. However, they conducted their study not with sports fans, but with followers of different brands on Facebook.

All items from these pre-validated scales were used for the U&G motivation of this study. Only the items of the personal identity scale had to be adapted to the sports fan context. For example, the item “I share the same goals of other (brand) fan page members on Facebook” (Fernandes & Castro, 2020, p. 670) was adapted to “I share the same goals of other followers of my favourite team”.

Concerning the COBRA levels, only a few scales exist in the literature (Buzeta et al., 2020; Schivinski et al., 2016; Vale & Fernandes, 2018). Furthermore, none of these scales are specifically designed for Instagram. However, the scales of Buzeta et al. (2020) stood out because of their inner consistency and number of items. Therefore, the COBRA level scales of consumption, contribution, and creation were all adapted from Buzeta et al. (2020) in this study. They adapted their scales from Schivinski et al. (2016) and validated them with a sample of 939 respondents. Their study used these scales for the investigation of brand followers on Facebook, Instagram, Reddit, and YouTube. Therefore, the wording of these scales was adapted to the context of sports fans and exclusively the social media channel Instagram for this study. For example, the consumption scale item “On (social medium) I read brand-related posts” (Buzeta et al., 2020, p. 87) was adapted to “On Instagram I read posts and comments related to my favourite team”. In addition, the five-point Likert scale originally used was expanded to a seven-point Likert scale.

With regard to fan loyalty, various scales for attitudinal loyalty (e.g. Biscaia et al., 2013; Gladden & Funk, 2001; Yoon et al., 2017; Yun et al., 2020) and behavioural loyalty (e.g. Bauer et al., 2008; Gladden & Funk, 2001; Kang,

2015; Maderer & Holtbrügge, 2019) were considered. For the attitudinal dimension of fan loyalty the scale of Yun et al. (2020) was applied in this study because of its internal consistency, reliability, and sufficient number of items. They based their scale on various sports fan loyalty research (Gladden & Funk, 2001; Stevens & Rosenberger, 2012; Wang et al., 2011) and validated it with a sample of 207 football fans. Since this scale was already very suitable for this research no further adaption had to be made.

The behavioural dimension of fan loyalty was queried in this study with a scale by Maderer and Holtbrügge (2019). They adapted their scale from different sports fan loyalty literature (Bauer et al., 2005; Gladden & Funk, 2001; Maderer et al., 2016; Mahony et al., 2000). Their scale was chosen because it was created specifically for a survey of local and satellite fans. Thus, questions such as the frequency of attending games of the favourite team at the stadium were not included in the scale due to the geographic limitations of satellite fandom. This allows for a consistent interpretation of the data between the two fan groups. The scale was validated with a sample of 3.857 local and satellite fans. Again, no adaption had to be made to the meaning and wording of the items.

Since additional minor changes were made to the scales after the pilot study, the final questionnaire with an overview of all adapted item batteries of the 11 constructs, their Likert scales, and sources can be found in Table 5 at the end of the pilot study chapter 4.3.5.2.

### 4.3.3 Seven-Point Likert Scales

A Likert scale is an instrument to measure attitudes, beliefs, opinions, and behaviours (DeVellis, 2002). As already stated in the previous subchapter, only pre-validated item batteries were used for the 11 constructs under investigation. While some of the chosen item batteries had a seven-point Likert scale (Maderer & Holtbrügge, 2019; Vale & Fernandes, 2018; Yun et al., 2020), others used a five-point Likert scale (Buzeta et al., 2020; Fernandes & Castro, 2020). Thus, all Likert scales of the pre-validated scales use a midpoint, which is also recommended by various researchers (Adelson & McCoach, 2010; Chyung et al., 2017; Roberts et al., 2018). The midpoint has the advantage that participants are not forced to answer a question to which they actually have a neutral attitude (Chyung et al., 2017).

However, a seven-point Likert scale was used for all item batteries to ensure consistent response options and thus simplify the questionnaire, which meant that the five-point Likert scales of Buzeta et al. (2020) and Fernandes and Castro (2020) were adapted to seven-point Likert scales. Furthermore, the response options were standardized for simplicity, as they differed slightly between the pre-validated item batteries. A seven-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree" was used for all item batteries. An exception is the behavioural loyalty item battery from Maderer and Holtbrügge (2019), whose items do not measure agreement but frequency. Thus, for this item battery the recommended seven-point Likert scale ranging from "1 (Never)" to "7 (Very Frequently)" was applied. Seven-point Likert scales have the advantage over five-point Likert scales in that participants can



answer more sensitive to the questions, and are especially recommended for surveys distributed online (Finstad, 2010).

After describing the adaptation of the construct item batteries to a uniform seven-point Likert scale in this subchapter, the following section presents the translation of the questionnaire.

#### 4.3.4 Translation of the Questionnaire

Since this study compares NHL fans from the USA and Canada with NHL fans from Germany, the questionnaire was developed in English and German. This translation is important because respondents should receive the questionnaire in their own language, especially if they do not speak the foreign language (Stening & Zhang, 2007). The questionnaire was initially created in English, as all pre-validated item batteries were also available in English, and then translated into German. This translation ensures that German participants also fully understand the questionnaire and can complete it in their own language.

Forward and backward translation was performed by different independent translators to ensure validity of the scales and accurate translation (Brislin, 1970; Hilton & Skrutkowski, 2002; Maneesriwongul & Dixon, 2004). Several steps were taken for the translation process. First, forward translation was applied by two independent translators, which means that the questionnaire was translated from English into German. Second, the two translated versions were compared by a panel of sports management researchers and combined into an initial translation version. Third, the initial translated version was back-translated into English by two other independent translators. Finally, the two back-translated versions were compared with each other and the original

version by the panel of sports management researchers. No discrepancies were found between the different versions, which confirms the translated version. This translation process is in line with the guidelines from Sousa and Rojjanasrirat (2011) for scales in cross-cultural research.

#### 4.3.5 Instrument Pre-Test and Pilot

A pre-test and pilot is used to test the instruments by obtaining feedback from people who were not involved in the development of the questionnaire (Dillman, 2007). Although only pre-validated scales were used in the creation of the survey, the questionnaire was tested before it was applied for data collection. This ensures that the adaption and translation did not affect the validity of the pre-validated scales. Churchill (1979), in his procedure for developing better scales, also recommends this validity assessment before using the scales. It also ensures that the questionnaire does not contain errors and that the questions are understood by the participants (Dillman, 2007).

Therefore, the following subchapters present a description of face and content validity and the steps taken to test it. The implementation of the pilot study, which is the final validity test, is then discussed. The instrument pre-test and pilot section is concluded by an overview of all final adapted item batteries of the 11 constructs, their Likert scales, and sources.

##### *4.3.5.1 Pre-Testing of Face and Content Validity*

The validity of constructs can be divided into four components (Hair et al., 2014), namely face, content, convergent, and discriminant validity (Martin & Austin, 2010). Since face validity must be established before testing the theory by using CFA (Hair et al., 2014) and convergent and discriminant validity can

be statistically assessed, the survey pre-test focuses exclusively on the face and content validity components. Convergent and discriminant validity will be tested during data analysis in chapter 5.

Face validity outlines whether the questions in an item battery are relevant, reasonable, unambiguous, and clear according to a researcher's subjective evaluation (Oluwatayo, 2012). Thus it describes how well the instrument relates to the construct (Heimlich et al., 2011). Hair et al. (2014) even claims face validity as the most important validity test because "without an understanding of every item's content or meaning, it is impossible to express and correctly specify a measurement theory" (p. 620).

Hardesty and Bearden (2004) underline that although face validity and content validity are conceptually distinct, the terms are often used interchangeably (e.g. Churchill, 1979). However, while face validity focuses on the conformity of items with the construct definition (Hardesty & Bearden, 2004), content validity ensures that the items of the instrument appropriately reflect the content of the construct and thus all essential items are included (Straub et al., 2004). Consequently, content validity describes the representativeness of the construct elements (Heimlich et al., 2011). This also includes ensuring that the content of the elements fits the target population (Connell et al., 2018).

Several steps were undertaken to guarantee face and content validity in this study. First, all scales are pre-validated and were extracted from the relevant literature through a thorough literature review. To ensure that all items fit within the specific context of this study, they were adjusted accordingly where

necessary. This step was also performed by extant literature to ensure validity (e.g. Zhang et al., 2017).

Second, the items were presented to social media and sports management researchers from the author's professional environment and sports fans from the author's personal environment. The researchers and fans were asked to pay particular attention to the wording of the items. In addition, they were asked if there were any ambiguities and if the items adequately reflected the construct in question. No major changes have resulted from the feedback. Only the order of the items in the batteries was adjusted on the basis of the feedback, so that they are even more comprehensible. In particular, the inclusion of feedback from sports fans increases the likelihood that familiar terminology is used for the items and that the survey is well received by the participants (Dillman, 2007). This step is also consistent with Straub et al. (2004) who emphasizes that expert evaluations are important in the item validation process.

As a final step, a pilot study was conducted with local and satellite fans of various sports teams. These participants also used social media to follow their favourite sports team. The pilot study was used to validate the items of the survey and is described in more detail in the next subchapter. The steps presented in this subchapter confirm that face and content validity were observed and ensured in this study.

#### *4.3.5.2 Pilot Study with Sports Fans for Validity Testing*

A pilot study is an important final test before the distribution of the survey. On the one hand, this test is necessary for this study to validate the translated

German version of the questionnaire in addition to the original English version. On the other hand, the pre-validated scales from the literature can be retested in the pilot study.

Dillman (2007), for example, recommends conducting a pilot study after receiving feedback on the questionnaire from various expert groups. Therefore, this study also performed a pilot study. The pilot study was conducted in early March 2021 before the final survey was distributed. In this test, it is particularly important that the participants come from a similar background as the future participants (Hair et al., 2014). Thus, only sports fans who follow their favourite team on social media could participate in the pilot study. However, to simplify the data collection of the pilot study and not to additionally address future participants with the pilot survey, sports fans of all sports and users of different social media platforms were allowed to participate in the pilot.

The pilot questionnaire was shared within various fan clubs and sports teams from the researcher's private environment. A total of 104 non-random participants took part in it. The participants consisted of German and English native speakers, so that both versions of the questionnaire could be tested. Furthermore, the participants were a mix of local and satellite fans. After answering the questionnaire, the participants gave the researcher brief feedback on the wording of the questionnaire and unclear items. This process also ensured that participants from Germany, the US and Canada understood the items equally.

Moreover, the collected data from the pilot study was used to conduct an exploratory factor analysis (EFA) and to test Cronbach's alpha. EFA allows the researcher to break down the data set to find out how many factors are represented best by the data (Taherdoost et al., 2014). In contrast, Cronbach's alpha describes the inner consistency of a construct (Taber, 2018). The Kaiser's criterion was applied to the EFA, which retains factors with eigenvalues greater than one (Kaiser, 1960, 1970). The items for U&G motivations, COBRA levels, and fan loyalty were tested separately. The EFA determined five instead of six factors for U&G motivations, four instead of three factors for COBRA levels and exactly two factors for fan loyalty. Thus, the EFA has confirmed that the data is very close to the theory. In addition, the inner consistency of the constructs was also confirmed by Cronbach's alpha, with the constructs having a value of 0.7 or higher. Only two constructs had a value between 0.6 and 0.7, which is still considered acceptable (Taber, 2018; Van Griethuijsen et al., 2015).

Since only pre-validated scales were used (see subchapter 4.3.2), participants gave positive feedback, the constructs showed strong inner consistency, and sampling error may have caused the eigenvalues to the slight deviation in the number of factors for U&G motivations and COBRA levels (Shrestha, 2021), the author decided to continue this study with the scales from the pilot study. Therefore, based on the participant feedback and statistical results of the pilot study, no major changes have been made.

The only change resulting from pilot study and the feedback from participants was a slight adaption of the U&G motivation and behavioural loyalty scales.

Instead of showing complete statements per item, a sentence beginning was written above each item battery (e.g. "I like participating in this Instagram community because ..." for U&G motivation scales) and this sentence was completed with each item (see Table 5). These scales were thus adapted to the systematics of the COBRA scales by Buzeta et al. (2020) and improved the simplicity of the survey. Before the final survey was distributed, it was checked for spelling errors by individuals who were not involved in the study or were potential study participants (Dillman, 2007). The following table provides an overview of all adapted item batteries of the 11 constructs, their Likert scales, and sources.

Table 5: Overview of Final Item Batteries of the Constructs and their Sources

Constructs	Questions and Items	Measurement	Source	
Entertainment	Please indicate for each of the following statements how strongly you agree or disagree with it.  I like participating in this Instagram community because...	... it is entertaining.	7 point Likert Scale	Adapted from Vale and Fernandes (2018)
		... the community provides an outlet for me to escape my daily routine.		
		... it arouses my emotions and feelings.		
		... it relaxes me.		
Integration and Social Interaction	Please indicate for each of the following statements how strongly you agree or disagree with it.  I like participating in this Instagram community because...	... I feel closer to my team.	7 point Likert Scale	Adapted from Vale and Fernandes (2018)
		... it makes me feel less lonely.		
		... it makes me feel more connected to my team.		
		... I enjoy texting, discussing and sharing information with others that also like my team.		
Personal Identity	Please indicate for each of the following statements how strongly you agree or disagree with it.  I like participating in this Instagram community because...	... I feel very attached to my team.	7 point Likert Scale	Adapted from Fernandes and Castro (2020)
		... I feel a sense of belonging to my team.		
		... I am proud to be a follower of my team.		
		... I share the same goals of other followers of my team.		
Information	Please indicate for each of the following statements how strongly you agree or disagree with it.  I like participating in this Instagram community because...	... I can get information about team performance, player profiles, events and games scheduled.	7 point Likert Scale	Adapted from Vale and Fernandes (2018)
		... the sport-related information is useful.		
		... it helps me in forming an opinion about my team.		
		... I want to know what other people think about my team.		
Remuneration	Please indicate for each of the following statements how strongly you agree or disagree with it.  I like participating in this Instagram community because...	... I want to get a better service (e.g., from your team).	7 point Likert Scale	Adapted from Vale and Fernandes (2018)
		... I am able to obtain information I want without delay.		
		... when I want to buy a ticket or merchandise, I use my team's community to search for bargain prices.		
		... I can earn discounts, prizes, or money.		
Empowerment	Please indicate for each of the following statements how strongly you agree or disagree with it.  I like participating in this Instagram community because...	... I feel good about myself when other followers share my ideas and comments.	7 point Likert Scale	Adapted from Vale and Fernandes (2018)
		... I like receiving more affirmation about my comments.		
		... I want to influence the team to do, or to leave, something.		
		... I want to influence other people		



Table 5: Overview of Final Item Batteries of the Constructs and their Sources (continued)

Consumption	Please indicate for each of the following statements how strongly you agree or disagree with it.  On Instagram ...	... I follow the account of my team and/or other related accounts. ... I follow hashtags related to my team. ... I view fan accounts related to my team. ... I view pictures, videos or stories related to my team. ... I read posts and comments related to my team.	7 point Likert Scale	Adapted from Buzeta et al. (2020)
Contribution	Please indicate for each of the following statements how strongly you agree or disagree with it.  On Instagram ...	... I "Like" pictures or videos related to my team. ... I "Like" comments related to my team. ... I engage with stories related to my team. ... I comment on pictures related to my team. ... I comment on videos related to my team. ... I repost pictures, videos or stories related to my team.	7 point Likert Scale	Adapted from Buzeta et al. (2020)
Creation	Please indicate for each of the following statements how strongly you agree or disagree with it.  On Instagram ...	... I initiate posts related to my team. ... I post pictures related to my team. ... I post videos related to my team. ... I post stories related to my team. ... I post my own created content including my team.	7 point Likert Scale	Adapted from Buzeta et al. (2020)
Attitudinal (Fan) Loyalty	Please indicate for each of the following statements how strongly you agree or disagree with it.	I would be willing to defend my team publicly, even if it caused controversy. I could never change my affiliation from my team to another professional team. I consider myself a committed fan of my team. I would watch my team regardless of which team they were playing against at the time.	7 point Likert Scale	Adopted from Yun et al. (2020)
Behavioural (Fan) Loyalty	Please indicate for each of the following statements, how often do you ...	... watch your team's matches on TV/streaming. ... consume other team-related media (e.g., magazines, podcasts or YouTube). ... wear the colours and/or logo of your team. ... participate in discussions about your team. ... purchase team merchandise. ... purchase products from companies that support your team (e.g., sponsors).	7 point Likert Scale	Adapted from Maderer and Holtbrügge (2019)

#### 4.3.6 Sampling

A population is a precisely defined group of people or objects from which the sample is drawn as a subset. In a positivist study, the sample is statistically examined and the results are then applied to the entire population (Collis & Hussey, 2014; Mertens, 2010). This study collects samples from two populations, local and international satellite fans. Both units of analysis will be statistically researched and compared to answer both research questions.

Chapter 1.4 has already justified why this study explicitly examines local fans and German satellite fans of the NHL who use Instagram to follow content from their favourite team. For data collection and subsequent statistical analysis and comparison within this study, it is important to distinguish these two populations. As mentioned in chapter 2, there is no uniform delineation between local and international satellite fans, as there is little research on geographically distant sports fans. This study considers local sports fans as NHL fans who reside within 100 miles (160 km) radius of their favourite team's home stadium. This radius was chosen for several reasons. First, NHL teams only control the marketing and branding of their team within a 100 miles (160 km) radius (Richelieu & Pons, 2009) and exactly this radius is also labelled by NFL teams as their primary market (Collins et al., 2016). Second, Collins et al. (2016) concluded "that this distance was sufficient to make a stadium attendance more than a simple day trip" (p. 662) and that beyond this radius, geographic distance, for example, to family and friends, becomes noticeable at all. Therefore, this study applies the 100 mile (160 km) radius measure to the *Global Sports Fan Nation* framework, as explained in subchapter 2.2.9, to distinguish between the local and satellite fans.

International satellite fans of the NHL can reside in all countries except the USA and Canada. In this study, however, the population of international satellite fans is limited to Germany, so the sample does not consist of NHL fans from numerous different cultures and the satellite fan findings can be applied to one specific country. Consequently, this study considers international satellite fans as NHL fans residing in Germany. Satellite NHL fans on a national market level, i.e. NHL fans who live outside the 100 mile (160 km) radius of their favourite team but within the US or Canada, are intentionally not included in the analysis. In subchapter 1.3 it was already noted that this study aims to determine the influence on sports fans between the two extremes of local geographic proximity and foreign geographic distance, which also leads to differences in language and time. Therefore, only local and international satellite fans are compared in this study.

Since this is a social media study that investigates Instagram, all participants must also use this channel to follow their favourite NHL team or other hockey-related accounts. Thus, these participants engage with brand-related content of their favourite NHL team on Instagram. Both populations are therefore limited to sports fans who use social media, in particular Instagram, for their fandom. To ensure that participants met all these requirements, screening and filtering questions were placed at the beginning of the survey (see appendix 8.3).

As already stated in chapter 1.4, Instagram was chosen as the social media channel for this study for several reasons. On the one hand, this social media channel provides good opportunities for entertainment, demonstrating

support, and information gathering (Haugh & Watkins, 2016), which is all highly important for sports fans. On the other hand, Instagram has large and growing user numbers in the US, Canada, and Germany (Rabe, 2021, 2022a, 2022b) and therefore has also a high potential for the future.

#### 4.3.7 Snowball Sampling Method

Even though all NHL teams are publicly known, no accurate sampling frame can be constructed for the populations of local and international satellite fans. There are various reasons for this. First, the researcher is not aware of a uniform listing of all fan clubs for NHL teams in the US and Canada, as well as in Germany. Second, not all sports fan clubs are officially registered and therefore not open to the public. Third, fans can identify with a sports team without belonging to a fan club. In addition, there are different behaviour patterns among sports fans (Hunt et al., 1999; Samra & Wos, 2014), such as one fan regularly visiting home games and another fan, only watching game highlights of their favourite team on the internet. Because of these issues in establishing an accurate sampling frame for the two populations, they may be referred to as hidden or hard-to-reach populations. In particular, international satellite fans are a hidden population, as they do not reside near their favourite sports team like their local counterparts, but are scattered abroad. Therefore, snowball sampling was applied in this study.

Snowball sampling was designed as a sampling method to overcome recruitment challenges of hidden or hard-to-reach populations (Dosek, 2021; Faugier & Sargeant, 1997; Sadler et al., 2010). For this sampling method, the researcher starts contact chains to recruit different participants from a specific

population. Participants in these contact chains are then asked if they know of others in this specific population who would also participate in the study. Thus, the first contacted individuals in this chain of contacts are often referred to in the literature as the “seed” or “source” (Sadler et al., 2010, p. 370).

Due to the described procedure, this sampling method is considered as a non-probability sampling technique and thus can lead to the disadvantage of a non-random sample (Taherdoost, 2016). Because the sample consists of individuals who have numerous interrelationships, it could be biased and unbalanced in selected demographic characteristics (Berg, 1988; Faugier & Sargeant, 1997; Sadler et al., 2010). Thus, the question arises whether the results of this sample can be generalized to a broader population at all (Biernacki & Waldorf, 1981). However, this potential bias caused by snowball sampling is “a price which must be paid in order to gain an understanding of these hidden populations and their particular circumstances” (Faugier & Sargeant, 1997, p. 796). This is because snowball sampling makes it possible to assemble, with few resources, a hard-to-reach group of participants of sufficient size and diversity to which the researcher would otherwise not have access (Sadler et al., 2010). In addition, criteria for completion were included in the questionnaire which helps to control the quality of the sample.

Snowball sampling is commonly used for qualitative research (Biernacki & Waldorf, 1981; Dosek, 2021), but is also applied for quantitative studies (Leighton et al., 2021). In particular, the emergence of social networks has provided snowball sampling with a particularly effective and efficient platform for recruiting participants (Dosek, 2021; Leighton et al., 2021). The use of this

sampling method on social media also reduces potential bias because it expands the sample to include participants who are unknown to the researcher, as well as many other participants. It adds, however, a new bias to the sample because it only includes individuals from a specific population who have an active online presence (Leighton et al., 2021). Nevertheless, this bias arising from the use of snowball sampling in social networks does not apply to this study because it is a social media study and thus the targeted populations are limited to NHL fans with an active online presence. Furthermore, as online surveys are answered by participants without direct contact with the relevant researchers, they cannot be influenced by the researchers' values (Saunders et al., 2016).

Due to the advantages of reaching the hidden populations of local and international satellite fans as well as the studies' social media background, the snowball sampling method was applied in social networks for this study. Moreover, online surveys have a wide geographic reach (Sue & Ritter, 2012) and are therefore particularly well suited to reaching local and international satellite fans in the US, Canada, and Germany. The implementation of this sampling method and the overall data collection procedure is described in the following subchapter.

#### 4.3.8 Data Collection Procedure

The online questionnaire tool Jisc was used for data collection. The data collection process was conducted from the end of March to the end of June 2021. Therefore, much of the data collection procedure was implemented during COVID-19 lockdowns, for which online surveys are particularly well

suites (Leighton et al., 2021). At the time of data collection, many NHL stadiums were completely closed or only open to fans with limited capacity (Encina, 2021). The limited access by local NHL fans to their favourite team may have influenced their dependency on social media and thus altered the data collected. This is addressed in more detail in the limitations of this thesis (see chapter 7.5).

In addition, part of the NHL season and playoffs also took place during the data collection procedure, meaning fans are more engaged with the sport than during the off-season. As already stated in the previous subchapter 4.3.7, non-probability snowball sampling was applied in social networks to collect responses to the survey. For this purpose, two approaches were followed.

On the one hand, Instagram was used to gather responses. Numerous "seeds" (Sadler et al., 2010, p. 370) such as social media departments of NHL teams, hockey magazines, journalists or NHL news accounts with large follower numbers were identified and contacted. Of those, only few hockey magazines and NHL news accounts agreed to post the survey on Instagram. As it is difficult to create interest in each post (Leighton et al., 2021), the hockey magazines and NHL news accounts were provided with a striking image for the Instagram post and story to draw attention to the NHL fan survey (see appendix 8.6). The texts of the postings drew attention to participate in a survey about NHL fans on social media and asked the followers to share the survey to other fans they know. Furthermore, the posts and stories were reposted by the researchers personal Instagram account, as "it is crucial to

keep the snowball ‘rolling’” (Leighton et al., 2021, p. 39) when using snowball sampling.

On the other hand, Facebook was used to collect additional responses. Even though sports fans who do not use Instagram were not allowed to participate in the survey, Facebook was considered a suitable additional platform for recruiting participants because a large number of Instagram users also use Facebook (McLachlan, 2022). On Facebook, hockey magazines also posted the survey with the image and text from the Instagram post. On this platform, however, the focus was on the numerous Facebook groups of the individual NHL teams and NHL as a league. The survey was posted to more than 60 Facebook groups, with an identical image and a brief text drawing attention to participation in the survey and its content and encouraging participants to share the survey with other NHL fans. The Facebook groups were either English- or German-language. To address fans of all 32 NHL teams, each team was represented by at least one corresponding Facebook group. Prior to the post, the Facebook group administrator was asked for permission, and in several cases the survey was posted to the group by the administrator.

A particularly large number of survey participants were received via the posts of the English-language NHL news Instagram account “hockeynews.ig” and the two German-language hockey magazines “Dump & Chase” and “Eishockey News”. At the time of data collection, these three accounts alone had combined over 45.000 followers on Instagram. The overall sampling strategy is consistent with Leighton et al. (2021), who also applied a social media snowballing approach during the period of the COVID-19 lockdowns.

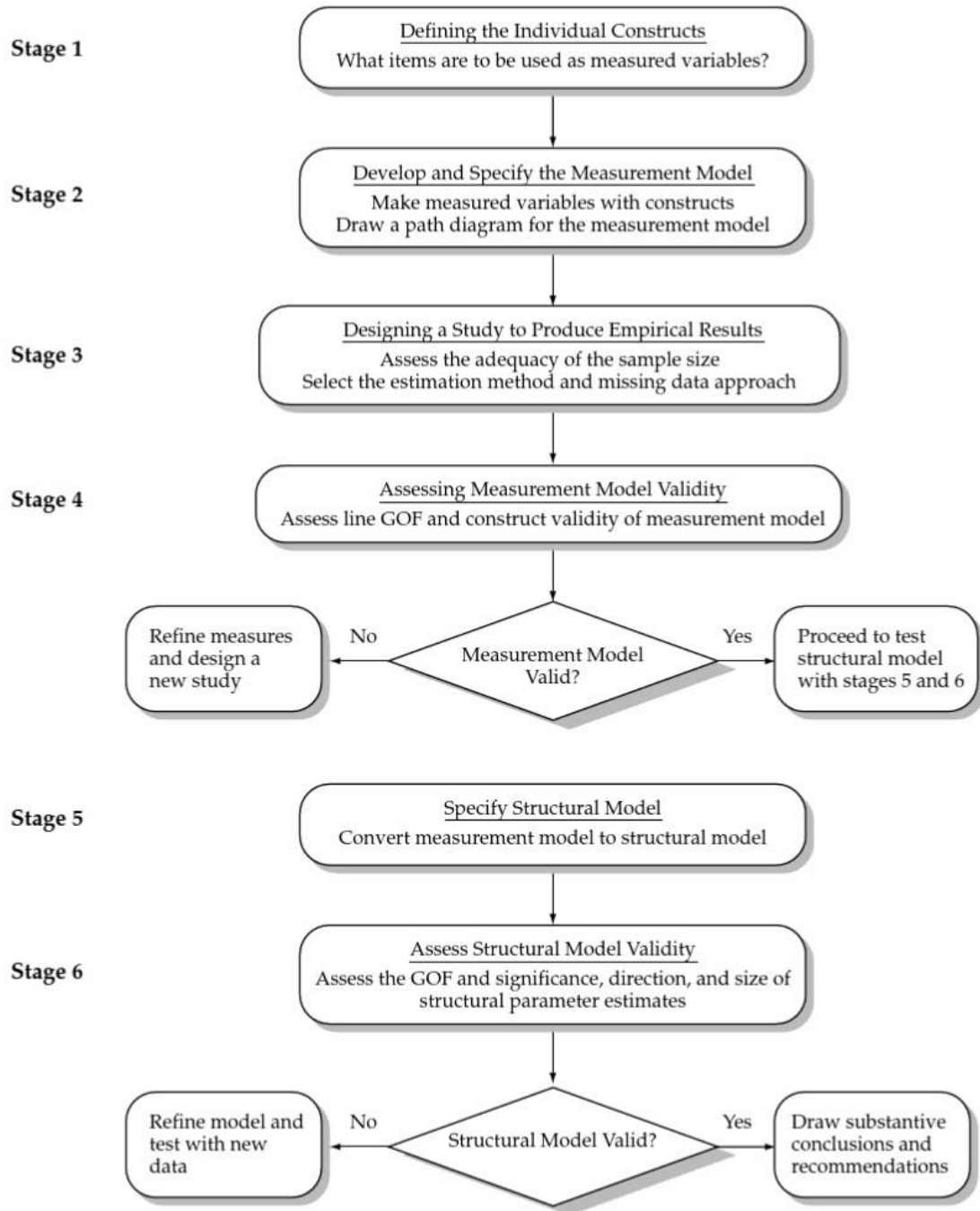


#### 4.4 Survey Data Analysis Procedure

One objective of this study is to test the conceptual model developed on the basis of theory. For this purpose, CFA followed by SEM will be used to analyse the collected data (Hair et al., 2014). This method of analysis can be applied when a structural theory on a particular phenomenon is to be tested (Byrne, 2010). While CFA tests whether the conceptual model is consistent with the data in the applied sample (Brown, 2015; Byrne, 2010), SEM establishes causal relationships according to the conceptual model and tests the extent to which the model is supported by the sample data (Schumacker & Lomax, 2004). SEM is often applied when examining the relationship between U&G motivations and the COBRA levels (e.g. Mishra, 2021; Piehler et al., 2019) as well as the relationship between social media engagement and loyalty (e.g. Jayasingh, 2019; Lim et al., 2015; Zheng et al., 2015). For all these reasons, it is appropriate that SEM is also used for data analysis in this study.

Hair et al. (2014) recommended a six-stage process for the implementation of SEM. This study follows the six-stages of this process, which are illustrated in the following figure.

Figure 13: Six-Stage Process for Structural Equation Modeling (Hair et al., 2014, p. 566)



With the definition of the individual constructs (see chapter 3), the development of the conceptual model (also see chapter 3), and the design of the survey instrument (see chapter 4.3), the first three steps have already been completed in this study. Therefore, the data analysis procedure focuses on the

last three stages. For these stages, the collected data were analysed using the IBM SPSS AMOS statistics program (version 28) with maximum likelihood estimation.

In stage four, the collected data is divided into a local and an international satellite fan sample for the purpose to test moderation in the final stage. In addition, the validity of the measurement model for both samples is assessed by CFA. Various goodness-of-fit indices were used for this purpose, in particular normed chi-square ( $\chi^2/df$ ), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA) were used for this (Bagozzi & Yi, 1988; Bentler & Bonett, 1980; Hair et al., 2014; Hu & Bentler, 1999). After the measurement model had achieved suitable model fit it could be moved to stage five. In this stage, the measurement model was converted to the structural model by establishing the relationships based on the hypotheses and the conceptual model (Hair et al., 2014; Schumacker & Lomax, 2004). Finally, in stage six, the validity of the structural model was confirmed for both samples. A multi-group analysis based on the chi-square difference test was then conducted to test moderation and thus compare the individual relationships in the model between local and international satellite fans (Byrne, 2010). Based on this, the hypotheses were supported or rejected. The overall data analysis process presented in this subchapter is discussed in detail in chapter 5.

#### 4.5 Research Ethics

In addition to the appropriate research methodology, it is also important to consider ethical considerations before conducting research. At Northumbria

University Newcastle, all research projects must first be approved by the ethics committee before researchers are allowed to start collecting data. In order to comply with Northumbria University's research ethics and governance handbook, this study meets all necessary requirements.

In this research no participant under the age of 18 was included. At the beginning of the online survey, participants received a standard statement about their rights and were informed that they must be at least 18 years old to participate in the questionnaire (see appendix 8.3). It was noted that participants can withdraw their information at any time if they wished to do so and that their information would be kept strictly confidential and anonymous, which also lead to more honesty on the part of the participants (Collis & Hussey, 2014). By clicking on "I agree" on the consent form, participants agreed to the standard statement, confirmed that they were 18 years of age or older, and were finally forwarded to the survey questions.

The questionnaire only asked participants to indicate their gender, age, level of education, employment status, and country of residence. In particular, this preserves the anonymity of the participants, since, for example, no names or addresses were requested. At the end of the survey, participants were given the opportunity to enter their email address to receive a summary of the evaluated results. This was not mandatory and was only intended as an incentive to participate in the study, as voluntary participation is important and financial or material rewards can lead to biased results (Collis & Hussey, 2014). The email addresses provided will not be passed on to third parties or included in the study and have also been separated from the data. Thus, the

email addresses were not associated to their survey responses to ensure anonymity. After the summary of the survey results is sent, the email addresses are deleted.

Furthermore, the online survey tool JISC was used, which is prescribed in the university's guidelines. JISC is constantly updating their service terms and privacy notes to ensure that these are compliant with the obligations under the General Data Protection Regulation (JISC, 2021b). Moreover, JISC is particularly concerned with data security and consistently works to protect their network (JISC, 2021a). Only the researcher had access to the password protected account of the online survey tool. The collected electronic data was transferred to SPSS and stored in password protected files on the computer of the researcher and as backup on an encrypted data cloud.

Beginning of February 2021, the ethics form including the questionnaire, data collection method and procedures for maintaining confidentiality of the research were submitted to the ethics committee. Ethical approval has been granted by the ethics committee on 17/02/2021 (see appendix 8.4). The study was considered to have medium ethical risk level, as individuals are included in the data collection of the research.

#### 4.6 Chapter Summary

This chapter used the framework of Crotty (1998) to present the research design and methodology of this study. In this context the epistemology of objectivism and the theoretical perspective of positivism was introduced, leading to an quantitative research design to answer both research questions. Furthermore the survey research method was explained. It was shown how

the questionnaire was constructed based on pre-validated scales from extant literature. It also discussed how the survey was tested before the actual data collection and how the data collection was then carried out. The chapter concludes with a brief overview of the survey data analysis procedure. It was demonstrated that this study follows the six-stage process for SEM by Hair et al. (2014) for the data analysis. Since the first three stages have already been completed, the next chapter will describe the last three stages of the data analysis process for SEM in detail.

## **5 Survey Data Analysis**

### **5.1 Chapter Overview**

In this chapter the statistical analysis of the data collected from the survey as well as the hypothesis testing are presented and explained. For this analysis CFA and SEM are used. The chapter begins with the examination and cleaning of the data set. A sample review follows, in which the demographics of the samples of local fans and international satellite fans are analysed descriptively and team preferences are discussed and compared. Then the chapter continues with the reliability test of the constructs.

This study uses the six-stage process for SEM of Hair et al. (2014) as a guideline. While the first three stages have already been conducted and summarised in subchapter 4.4, the remaining stages are applied in this chapter after the reliability test of the constructs. Therefore, CFA is used to validate the specified measurement model. The structural model is then assessed and the hypotheses formulated in chapter 3 are tested. For hypothesis testing a chi-square difference test is applied for each hypotheses, as this test can statistically measure noninvariance in multi-group analysis (Byrne, 2010). At the end of the chapter, the empirical results are summarised with an overview of the supported and rejected hypotheses.

### **5.2 Data Exploration and Examination**

#### **5.2.1 Exploration of the Data Set**

The methodology section (see chapter 4.3) already presented the development of the questionnaire as well as the distribution of the survey. In

this subchapter, the collected data set is explored and cleaned based on several criteria to improve the overall data quality.

A total of 2.266 persons participated in the survey between 31/03/2021 and 30/06/2021. However, not all participants were eligible to be included in the final sample for the analysis, as this study specifically compares local NHL fans who reside 100 miles (160 km) or closer to their favourite team's home arena with NHL fans who reside in Germany. In addition, individuals must use the social media platform Instagram and must also follow their favourite NHL team's official Instagram account or at least other related accounts (e.g. official NHL Instagram account) to be included in the analysis. Since snowball sampling does not only address these specific fan groups (see subchapters 4.3.7 and 4.3.8), numerous NHL fans who do not meet these requirements also participated in this study. Consequently, the data cleaning process resulted in a larger reduction of the sample, which is described step by step in the following paragraphs.

In the first step, all participants who were automatically directed to the end of the survey by a filter question and thus did not answer the complete questionnaire were removed from the sample. The first filter question "Which NHL team are you a fan of? / Which NHL team are you most interested in?" was answered by 20 participants with "I have no interest in the NHL". The second filter question "Do you follow the (official) Instagram account of your team and/or other related accounts (e.g. official NHL account or other hockey related accounts)?" was answered by 207 participants with "No, I do not follow" and by 447 participants with "No, I do not use Instagram". Due to these



answers, these 674 participants were forwarded directly to the end of the questionnaire, therefore did not answer the complete survey and were excluded from the sample. The sample was thus reduced in this step from 2.266 participants to 1.592 participants. All of these 1.592 remaining participants fully completed the questionnaire as all questions were mandatory to answer.

In the second step, all participants that reside in countries that are not investigated in this study were eliminated from the sample. The sample of 1.592 participants consists of 715 NHL fans from the US, 280 NHL fans from Canada, 513 NHL fans from Germany, and 83 NHL fans from other countries. As this study only compares NHL fans from the US and Canada with NHL fans from Germany, the 83 participants that reside in other countries were extracted from the sample. Therefore, the sample was reduced in this step from 1.592 participants to 1.509 participants.

In the third step, all satellite fans on a national market level were removed from the sample. As already stated in subchapter 1.3, this study aims to compare crucially geographically diverse NHL fan groups with each other. Because satellite fans on a national market level still reside in the same country as local fans, they are not as geographically different from local fans as satellite fans on an international market level are. This study defines all NHL fans who live in the US or Canada but reside more than 100 miles (160 km) from their favourite team's home arena as satellite fans on a national market level (see subchapter 2.2.9). A total of 429 US or Canada based participants have indicated that they reside more than 100 miles (160 km) from their favourite

NHL team's home arena, were consequently identified as satellite fans on a national market level, and eliminated from the sample. Thus, the sample was reduced in this step from 1.509 participants to 1.080 participants.

In the fourth step, the length of time spent to complete the survey was monitored. The pilot study showed that participants need approximately five minutes for the entire online survey. Thus, the questionnaires of the participants who completed the survey in a significantly shorter time (less than three minutes) were examined more closely. It was found that these participants did not take the online questionnaire seriously as they clicked for every question the same answer or always answered with "Neither Agree nor Disagree". This behaviour is described as straightlining (Qualtrics, 2022) and resulted in a deletion of 23 participants. Consequently, the sample was reduced from 1.080 participants to 1.057 participants in this step.

In the final step, the data set was checked for multivariate outliers. In general, there are univariate, bivariate, and multivariate outliers (Hair et al., 2014). Since the analysis of the data set deals with numerous variables, it must be investigated for multivariate outliers. The Mahalanobis Distance Test can be used to identify multivariate outliers (Byrne, 2010; Tabachnick & Fidell, 2014). Since local and satellite fans on an international market level are two different sports fan groups, the sample was split into these two groups. This was done for the purpose of testing moderation using a multi-group analysis and chi-square difference test in AMOS at a later stage. The initial local fan sample consists of 554 participants and the initial international satellite sample has 503 participants. The data of each sample were assessed for multivariate

outliers using a Mahalanobis Distance Test in AMOS ( $p < 0,001$ ) with the measurement model containing all items. In the local fan sample 82 multivariate outliers were identified and removed. In the international satellite fan sample 38 multivariate outliers were identified and removed. The final local fan sample includes 472 participants and the final international satellite fan sample consists of 465 participants. Therefore, the overall sample of this study has a total of 937 cases.

### 5.2.2 Normality Screening for Structural Equation Modeling

Multivariate data analyses rely on several assumptions necessary to apply this technique. An important assumption is normality (Kline, 2015). Because SEM is a multivariate technique, normality screening of data is of great importance before starting data analysis (Hair et al., 2014). In general, data-related issues such as non-normality can cause model fit indices to deteriorate even though they are not actually related to model misfit (Jobst et al., 2021).

In the context of normality, the overall size of the sample is critical. Since larger sample sizes reduce sampling error and thus increase statistical power, normality has a smaller effect on large samples than on small samples (Hair et al., 2014). As there can be great differences between SEM models, there are various opinions regarding minimum sample size. For example, Sideridis et al. (2014) suggest a minimum sample size of 50 to 70 cases, while Wolf et al. (2013) recommend a minimum sample size of 30 to 460 participants depending on the complexity of the SEM model. Hair et al. (2014) also distinguishes the minimum sample size depending on the SEM model complexity between 100 to 500 cases, but additionally propose a sample size

of at least 200 participants as a general sound basis for SEM. This recommendation is in line with Kline (2005), who considers a sample for SEM of over 200 cases to be large.

In this study, the overall sample size ( $n = 937$ ) as well as the separate sample sizes of local fans ( $n = 472$ ) and international satellite fans ( $n = 465$ ) are well above this threshold. It can therefore be assumed that the influence of normality is rather marginal. Nevertheless, the normality was checked in AMOS with the measurement model containing all items. The z-values for the skewness and kurtosis were calculated and compared to the established critical values ( $< -1.96$  or  $> +1.96$  for 0.05 error level) (Byrne, 2010). In both samples, some variables followed the normality criteria, while others did not. Even though the influence of non-normality can only be marginal due to the large sample size, bootstrapping is used in the following analysis to test the effects of non-normal distributed variables on the model (Byrne, 2010; Efron & Tibishiran, 1993).

### 5.3 Sample Overview

Before starting with the multivariate data analysis, the demographics of both the local fan and international satellite fan samples are presented and compared with the demographics of the ice hockey industry and the population of their respective countries. Then, the NHL team preferences of the two samples are compared and discussed. Finally, the representativeness of the two samples is evaluated.

### 5.3.1 Demographics of Local Fans and International Satellite Fans

The local fan sample consists of 79% of NHL fans based in the US (n = 372) and 21% of NHL fans based in Canada (n = 100). The international satellite fan sample only consists of NHL fans that reside in Germany. A total of 12% of this sample can be classified as displaced fans (n = 57), meaning that these fans were previous local fans that moved to Germany at some point (Collins et al., 2016; Pu & James, 2017). However, since displaced fans are a subgroup of international satellite fans (see Figure 5), they are included in the overall sample of international satellite fans. Demographic data collected from both fan types included gender, age, education status, and employment status. The demographic data of the local fans and international satellite fans is summarised in the following table.

Table 6: Sample Overview of Local Fans and International Satellite Fans

	Local fans in this study	International satellite fans in this study
<b>Gender</b>		
Male	50,2%	79,8%
Female	48,5%	18,9%
Other	0,4%	0,4%
<b>Age</b>		
18 - 25	30,5%	32,0%
26 - 35	17,8%	30,8%
36 - 45	14,0%	21,5%
46 - 55	16,7%	13,5%
56 - 65	14,8%	1,7%
66 +	4,4%	0,0%
<b>Education Status</b>		
Less than high school degree	2,5%	18,5%
High school graduate	30,7%	24,3%
Apprenticeship   Vocational training	7,6%	21,3%
Associate degree	14,8%	3,2%
Bachelor degree	25,2%	14,8%
Master degree	12,3%	14,6%
Doctoral   Professional degree	2,1%	1,3%
Other	2,5%	0,6%
<b>Employment Status</b>		
Student   apprenticeship   pupil	22,7%	28,0%
Unemployed	4,4%	2,4%
Self-employed	7,4%	5,8%
Employed part-time	15,3%	6,2%
Employed full-time	47,0%	58,1%
Retired	9,3%	1,7%
Other	3,2%	1,1%
Comment: The percentages of the response option "Prefer not to say" of this study is not included in the overview.		

The sample overview of local fans and international satellite fans in this study shows that all genders, ages, education levels, and employment statuses are represented. However, when comparing the data of both fan groups with their respective population and industry data, some points stand out. Therefore, the local fans are discussed in comparison with the distributions of the US and Canadian population as well as the demographics of US NHL fans (also see appendix 8.7) in the following. In addition, the international satellite fans are compared with the distributions of the average German population as well as the demographics of German ice hockey fans (also see appendix 8.8).

First, the gender distribution of men and women in the sample of local fans is almost equal, with slightly more men in the sample. While these numbers are comparable to the gender distribution of the US and Canadian average population, the NHL has nearly 15% more male fans than this sample. This increased number of female local fans in the sample can be explained by the fact that the NHL has recently received a large increase in female TV viewers in its domestic markets (McCarthy, 2022; Sportsnet, 2022) and that the survey was conducted online rather than in the stadium, which especially addresses the increasing number of female TV viewers.

In contrast, the international satellite fan sample includes significantly more men than women. Even if this does not match the average German population, it is mainly men who are interested in the sport of ice hockey in Germany. In fact, almost 10% more men are included in the media data of Eishockey News (2020) than in the sample of the present study.

Second, it is noticeable that the local fan sample appears to be younger than the average US and Canadian population and US NHL fan. However, as this study only examines local NHL fans who use the social media platform Instagram for their fandom, this deviation is not surprising since Instagram is primarily used by younger people (Dixon, 2022a). The greater amount of younger people in the local fan sample also explains the greater number of students and lower number of retirees compared to the average US and Canadian population.

Also the international satellite fan sample appears to be younger than the German population and the demographics of average German ice hockey

fans. Again, this difference can be explained by the fact that all study participants are Instagram users and this platform is mainly used by younger people (Dixon, 2022a). In addition, the media data of Eishockey News (2020) represents the readership of a print magazine which often tends to be older. Furthermore, the high proportion of younger international satellite fans can be explained by the fact that they are fans of foreign sports teams, as young Germans in particular are interested in North American sports such as the NFL, NBA, and NHL (Baier, 2020). This again explains the comparatively larger number of students and lower number of retirees.

Third, the local fan sample appears to be higher educated than the average US and Canadian population, or average NHL fan. Again, this difference can be explained by the fact that all study participants are also Instagram users. In general, people with a higher education are more likely to use social networks than people with a lower education level (Dixon, 2019).

The same is true for the international satellite fan sample. It seems to be higher educated than the average German population or average German ice hockey fan. This can again be explained by the fact that people with a higher education are more likely to use social networks (Dixon, 2019). Moreover, the literature already indicates that satellite fans are generally well educated (Ben-Porat, 2000). As there are differences between the North American and German education systems, a comparison of the education levels listed in the questionnaire can be found in the appendix (see appendix 8.5).

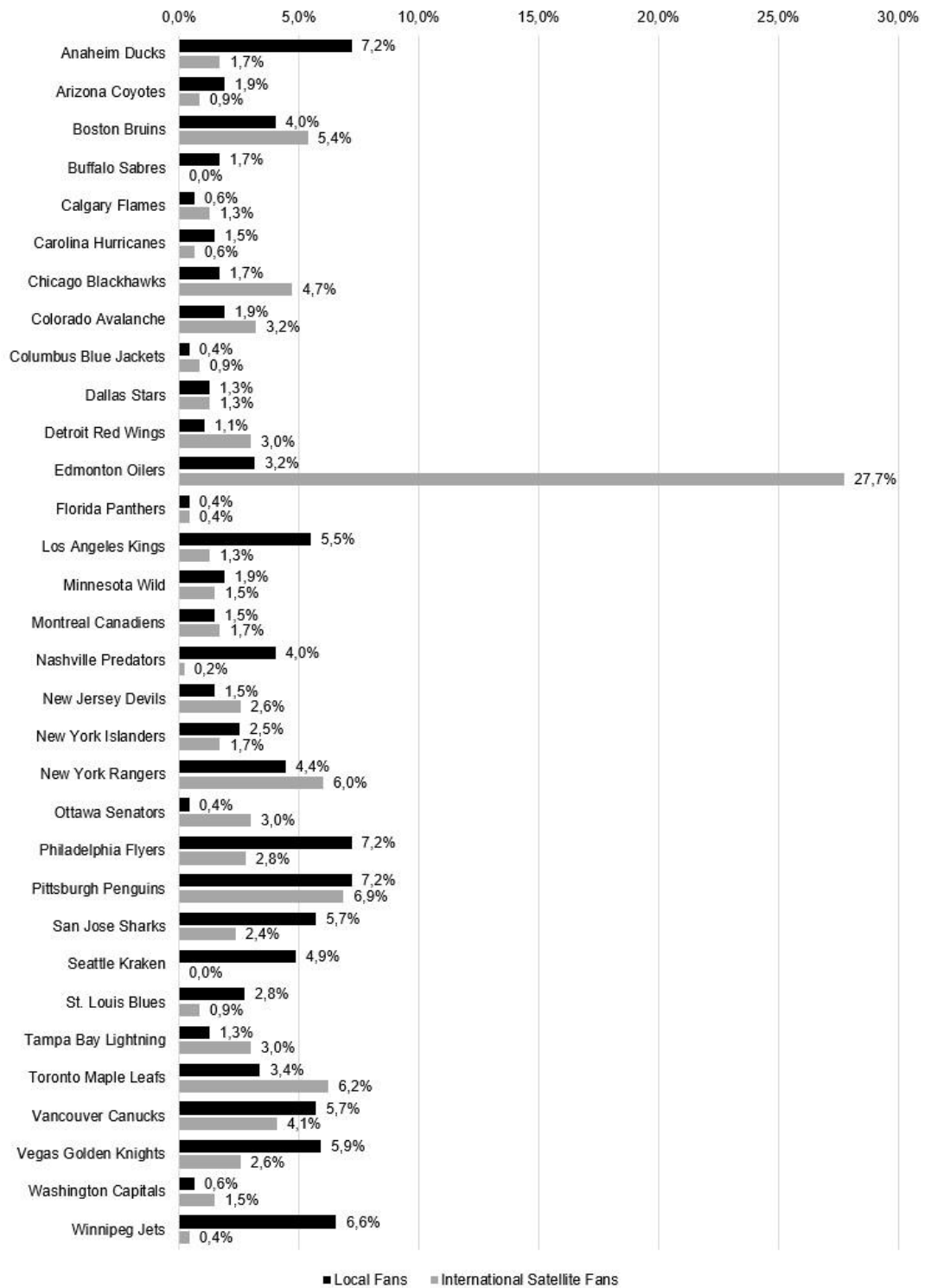


The following subchapter of the sample overview presents the NHL team preferences of the local and international satellite fans who participated in this study.

### 5.3.2 NHL Team Preferences of Local Fans and International Satellite Fans

In addition to the demographic questions, participants were also asked about their preferred NHL team. To avoid team-specific results, fans of all NHL teams were included in the sample. At the time of data collection, 31 teams were participating in NHL league play. However, short time after data collection, on 21/07/2021, the expansion draft of the Seattle Kraken expanded the NHL by one team to a total of 32 teams (NHL, 2021b). Because the Seattle Kraken were already marketing themselves on various social media channels during data collection, they were added as a favourite team response option to the questionnaire, even though they were not participating in official NHL play at that time. An overview of the favourite NHL teams of the local fans (black bars) and international satellite fans (grey bars) participating in this study is presented in the following figure.

Figure 14: Sample Comparison of NHL Team Preferences of Local and International Satellite Fans in this Study



The local fan sample includes fans from all NHL teams. Fans of the Anaheim Ducks, Philadelphia Flyers, and Pittsburgh Penguins are the most

represented, at 7.2% (n = 34) each. Although the Seattle Kraken had not yet participated in NHL play at the time of data collection, 4.9% (n = 23) of participants already identified with the team. The Columbus Blue Jackets, Florida Panthers, and Ottawa Senators had the lowest representation in the sample, each with only 0,4% (n = 2). The distribution of favourite teams was influenced by the snowball sampling. While some fan groups were less interested in the survey, other fan groups additionally shared it within their community, resulting in differences in the representation of individual teams in the overall sample. However, the local fan sample as a whole consists of a balanced mix of fans from different NHL teams, with each team represented.

In contrast, the sample of international satellite fans does not include fans of all 32 NHL teams. There are no fans of the Buffalo Sabres and Seattle Kraken residing in Germany included in the sample. While the Buffalo Sabres' lack of athletic success could be a hurdle to winning over German ice hockey fans (the team has not made the NHL playoffs in 11 years (Douglas, 2022)), the Seattle Kraken may have been affected by the fact that they were not yet involved in NHL play at the time of data collection (NHL, 2021b). In the literature, sporting success is mentioned as an important reason for satellite fans to support their favourite team (Branscombe & Wann, 1991). But also special experiences with the team such as attending a live game or meeting a player in person (neither could be provided by the Seattle Kraken at the time of data collection), are decisive for satellite fandom (Hyatt & Andrijew, 2008).

The fans of the Edmonton Oilers are by far the most strongly represented in this sample. This is not surprising, as Leon Draisaitl, a German ice hockey

player for Edmonton Oilers, won the Hart Trophy for the most valuable NHL player in 2020 (Satriano, 2020). Data collection began just under six months after the 2020 Hart Trophy was awarded to Leon Draisaitl. This is also in line with the literature that lists individual players as an important reason why satellite fans support a geographically distant team (Hyatt & Andrijiw, 2008). The remaining teams are represented in this sample by between 6.9% (n = 32) and 0.2% (n = 1). Again, the distribution of favourite teams is influenced by snowball sampling. However, a total of 30 of the 32 NHL teams are represented in the sample, resulting in no team-specific results.

To conclude, while no single team stands out among local fans, Germany-based international satellite fans are particularly interested in one team, the Edmonton Oilers.

### 5.3.3 Evaluation of Representativeness

In chapter 4.3.8, the different paths chosen to recruit as many different participants as possible for this study were presented. Even though the use of snowball sampling, a non-probability sampling technique, could in part be considered critical, a representative sample of local and international satellite fans has been obtained in this study for several reasons. First, the large overall sample size (n = 937) as well as the large individual sample sizes of local fans (n = 472) and international satellite fans (n = 465) reduces sampling errors. Second, the demographic information of both individual samples are comparable to industry data as well as the populations of the corresponding countries. While the local fan sample largely matches the demographic characteristics of US NHL fans as well as the US and Canadian populations

(see appendix 8.7), the international satellite fan sample can also be broadly compared to the demographics of German ice hockey fans as well as the German population (see appendix 8.8).

Finally, fans of all 32 NHL teams have participated in this study. In the local fan sample, there is a rather even distribution of fans from different teams. In contrast, the distribution of international satellite fans is more concentrated on the Edmonton Oilers due to a successful German player on that team. This thus reflects well the interest of German ice hockey fans in the NHL. Consequently, the results from this study can be evaluated as representative for local NHL fans and international satellite fans from Germany and the findings are generalisable to these populations (Collis & Hussey, 2014; Mertens, 2010).

#### 5.4 Construct Reliability

Before moving to CFA, the reliability of the data was examined. For this purpose, collinearity of the data was tested by calculating the variance inflationary factor (VIF). Since a large sample size is used in this study, multicollinearity is of much less concern (De Jongh et al., 2015; O'Brien, 2007). Nevertheless, the data was tested for collinearity and no multicollinearity was detected. In general, VIF thresholds of five are common (De Jongh et al., 2015). In the local fan as well as the international satellite fan sample most variables had a VIF of less than two. One variable in the local fan sample had a higher VIF (2.4) and two variables in the international satellite fan sample also exceeded the VIF of two (max. 2.2). As all values are well below the common threshold of five, there is no serious multicollinearity in the study.

Furthermore, the two standard reliability tests, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, and Bartlett's test of sphericity can be used to verify that factor analysis is an appropriate method for the data set and that meaningful results can be obtained. A KMO value of 0.88 for the local fan sample and 0.89 for the international satellite fan sample were calculated, indicating that both samplings are adequate. The Bartlett's test of sphericity showed significant results (significance = 0.00 in both samples) and thus indicates that the correlation matrix is not an identity matrix, allowing meaningful CFA to be performed. According to these results, CFA can thus be used as a suitable analysis method for the data set (Kline, 1994).

In addition, the inner consistency of every construct was checked by calculating Cronbach's alpha. The following table provides an overview of the number of items and Cronbach's alpha value for each construct in both samples.

*Table 7: Initial Cronbach's Alpha Values for Constructs*

Construct	Number of items	Cronbach's alpha in local fan sample	Cronbach's alpha in international satellite fan sample
Entertainment	4	0.774	0.725
Integration and Social Interaction	4	0.677	0.698
Personal Identity	4	0.815	0.855
Information	4	0.663	0.655
Remuneration	4	0.710	0.688
Empowerment	4	0.870	0.919
Consumption	5	0.602	0.620
Contribution	6	0.857	0.878
Creation	5	0.929	0.947
Attitudinal Loyalty	4	0.630	0.840
Behavioural Loyalty	6	0.766	0.817
<small>Comment: Cronbach's alpha values below 0.7 are indicated by a grey background.</small>			

In the literature, a Cronbach's alpha value of 0.7 or higher is mostly cited for sufficient inner consistency of the construct (Taber, 2018). However, other

studies also consider a Cronbach's alpha value of 0.6 or higher to be acceptable (Taber, 2018; Van Griethuijsen et al., 2015). Table 7 shows that all Cronbach's alpha values in both samples are at least above this threshold. Nevertheless, an attempt is made to raise as many constructs as possible above the threshold of 0.7 in order to strengthen construct consistency. For this purpose, the items and the literature were reviewed and weak items deleted on this basis. To ensure that the two samples remain comparable, care was taken that the same weak items are always eliminated for both samples.

Finally, the second item of integration and social interaction ("... it makes me feel less lonely.") was deleted, as loneliness is not included in numerous other scales for this construct (e.g. Buzeta et al., 2020; de Silva, 2019; Tsai & Men, 2013, 2017). The second item of remuneration ("... I am able to obtain information I want without delay.") was removed, because other remuneration scales do not use this item (e.g. Buzeta et al., 2020; de Silva, 2019; Seo & Green, 2008) and it seems too close to the meaning of the information construct in this study. In addition, the second ("... I follow hashtags related to my team.") and third ("... I view fan accounts related to my team.") item of consumption were deleted. The consumption scale was originally developed for social media platforms in general (Buzeta et al., 2020) and slightly adapted for Instagram in this study, but to follow hashtags and view fan accounts do not seem to be relevant for the construct consumption.

For the constructs information and attitudinal loyalty, no item cuts would have significantly increased their inner consistency in both sample. Since these

have already reached the acceptable value of 0.6 or higher (Taber, 2018; Van Griethuijsen et al., 2015), Cronbach's alpha did not necessarily need to be increased. Due to the deleted items discussed above, the following Cronbach's alpha values result.

*Table 8: Final Cronbach's Alpha Values for Constructs*

<b>Construct</b>	<b>Number of items</b>	<b>Cronbach's alpha in local fan sample</b>	<b>Cronbach's alpha in international satellite fan sample</b>
Entertainment	4	0.774	0.725
Integration and Social Interaction	3	0.733	0.671
Personal Identity	4	0.815	0.855
Information	4	0.663	0.655
Remuneration	3	0.700	0.718
Empowerment	4	0.870	0.919
Consumption	3	0.800	0.722
Contribution	6	0.857	0.878
Creation	5	0.929	0.947
Attitudinal Loyalty	4	0.630	0.840
Behavioural Loyalty	6	0.766	0.817
<small>Comment: Cronbach's Alpha values below 0.7 are indicated by a grey background.</small>			

When comparing Table 7 and Table 8, it is noticeable that a total of four Cronbach's alpha values could be raised to 0.7 or higher, increasing inner consistency of several constructs. The remaining four Cronbach's alpha values under 0.7 are between 0.630 and 0.671, which is still an acceptable level (Taber, 2018; Van Griethuijsen et al., 2015).

Based on the different tests in this subchapter, the individual constructs in both the local fan and international satellite fan samples proved to be reliable. The next subchapter therefore begins with the CFA of the two samples.



## 5.5 Confirmatory Factor Analysis

### 5.5.1 Objective of the Confirmatory Factor Analysis

Subchapter 4.4 already presented the six-stage process for SEM of Hair et al. (2014), which follows this study. While the first three stages have already been introduced, the remaining stages will be presented and applied in the next subchapters. In stage four of this SEM six-stage process, CFA is applied.

In general, CFA can be applied if the researcher already has knowledge about the model structure based on theory and literature (Byrne, 2010). Therefore, the researcher must prespecify the model before testing it with CFA (Brown, 2015). By confirming or rejecting the underlying theory, CFA tests whether the conceptual model is consistent with the data in the applied sample (Brown, 2015; Byrne, 2010).

CFA is the most critical stage in SEM testing, as it examines whether the measurement model is valid. For this reason the goodness-of-fit level and construct validity of the measurement model are tested. In principle, an acceptable fit is needed before moving to SEM. If the fit of the measurement model is unacceptable, it must be revised without compromising the theory and can then be retested (Hair et al., 2014).

### 5.5.2 Unidimensionality of Constructs

As a first step of the CFA, the single constructs of the measurement model were examined for unidimensionality. A construct is defined as an unidimensional construct if a set of measurement variables (i.e. item battery) can only be explained by this single underlying construct and no additional construct in the model (Cook et al., 2009; Hair et al., 2014). The investigation

of unidimensionality is an essential part of construct validity and thus also of the validity of the measurement model (Hair et al., 2014; Slocum-Gori & Zumbo, 2011). Even though only pre-validated scales were used in this study, Hair et al. (2014) recommends that all items should be checked again before continuing with SEM.

To test the unidimensionality of each construct, a CFA was performed in AMOS with every individual construct for both samples. In the case of a poor fit, the measurement variable set of the relevant construct were examined in more detail. This means if an item had a factor loading below the cut-off value of 0.5 (Hair et al., 2014) in at least one of both samples, this item was examined on the basis of the literature and deleted if necessary. Once again, care was taken to ensure that items were always deleted for both samples in order to maintain comparability. Furthermore, care was also taken to have at least three items per construct so that each construct is just-identified or even over-identified (Hair et al., 2014; Raykov et al., 2013).

While seven of the 11 constructs showed sufficient values, four constructs were adjusted, which was also based on the literature: The fourth item of information (“... I want to know what other people think about my team.”) was removed, as information is more about up-to-date information and this item is also not included in other scales of this construct (e.g. de Silva, 2019; Seo & Green, 2008; Witkemper et al., 2012). The first item of contribution (“... I “Like” pictures or videos related to my team.”) was deleted, because liking has a much lower impact than other contribution activities and is therefore almost part of the passive consumption activity (Tsai & Men, 2013, 2017). In addition,

the first item of attitudinal loyalty (“I would be willing to defend my team publicly, even if it caused controversy.”) was deleted. This was done, because attitudinal loyalty is a psychological commitment that does not describe behaviour, which is why the deleted item does not appear in some other scales (e.g. Kang, 2015; Yoon et al., 2017).

Furthermore, the first (“... watch your team’s matches on TV/streaming.”), second (“... consume other team-related media (e.g., magazines, podcasts, or YouTube.”), and fourth (“ ... participate in discussions about your team.”) item of behavioural loyalty were removed. As a pre-validated item battery was selected that was specifically tailored to satellite fans (Maderer & Holtbrügge, 2019), the data showed that the first and second items were not suitable for local fans. In contrast, the fourth item was not appropriate for international satellite fans. This could be because they are usually not surrounded by other fans of their favourite team and therefore cannot participate in discussions (Wann, 2006b; Wann et al., 2004; Wann et al., 2011). Since the literature was also taken into account for these decisions, they are not only justified in improving the model fit but also theoretically.

Table 9: Constructs, Remaining Items and Standardized Regression Weights after Unidimensionality Test

Constructs	Items	Standardized regression weights for local fan sample	Standardized regression weights for international satellite fan sample
Entertainment	Ent_1 entertaining	0.623	0.562
	Ent_2 outlet to escape daily routine	0.721	0.595
	Ent_3 arouses emotions and feelings	0.744	0.726
	Ent_4 relaxes	0.658	0.639
Integration and Social Interaction	Inte_Soc_1 feel closer to team	0.868	0.843
	Inte_Soc_3 feel more connected to team	0.802	0.877
	Inte_Soc_4 interacting with other fans	0.505	0.402
Personal Identity	Pers_1 feel attached to team	0.868	0.911
	Pers_2 feel belonging to team	0.853	0.855
	Pers_3 proud to be a follower	0.665	0.705
	Pers_4 share same goals as other followers	0.585	0.644
Information	Info_1 get information	0.819	0.825
	Info_2 information is useful	0.762	0.775
	Info_3 forming opinion about team	0.382	0.526
Remuneration	Rem_1 get better service	0.523	0.377
	Rem_3 use community to search for bargain prices	0.725	0.826
	Rem_4 earn discounts, prizes or money	0.787	0.886
Empowerment	Emp_1 feel good when other followers share my ideas	0.843	0.820
	Emp_2 receiving more affirmation about comments	0.875	0.895
	Emp_3 influence team	0.698	0.855
	Emp_4 influence other people	0.721	0.884
Consumption	Consump_1 follow account of team	0.695	0.690
	Consump_4 view team-related pictures, videos or stories	0.878	0.840
	Consump_5 read team-related posts and comments	0.749	0.600
Contribution	Contrib_2 "Like" team-related comments	0.572	0.651
	Contrib_3 engage with team-related stories	0.579	0.695
	Contrib_4 comment on team-related pictures	0.988	0.980
	Contrib_5 comment on team-related videos	0.988	0.980
	Contrib_6 repost team-related pictures, videos or stories	0.548	0.650

Table 9: Constructs, Remaining Items and Standardized Regression Weights after Unidimensionality Test (continued)

Constructs	Items	Standardized regression weights for local fan sample	Standardized regression weights for international satellite fan sample
Creation	Creat_1 initiate team-related posts	0.825	0.931
	Creat_2 post team-related pictures	0.935	0.961
	Creat_3 post team-related videos	0.926	0.932
	Creat_4 post team-related stories	0.800	0.776
	Creat_5 post own team-related content	0.766	0.829
Attitudinal Loyalty	Attitud_2 never change affiliation to another team	0.581	0.815
	Attitud_3 consider myself a committed fan	0.930	0.953
	Attitud_4 watch team regardless of team they play against	0.668	0.668
Behavioural Loyalty	Behav_3 wear colors and logo of team	0.774	0.842
	Behav_5 purchase team merchandise	0.860	0.835
	Behav_6 purchase products from sponsors	0.678	0.545

### 5.5.3 Model Fit of Initial Full Measurement Model

After the individual constructs were tested and partially adjusted, all 11 constructs with their remaining items were combined to form the full measurement model. As a second step of the CFA, this full measurement model was tested for both samples in AMOS with maximum likelihood estimation. Even though the influence of non-normality can only be marginal (see subchapter 5.2.2), bootstrapping was used for testing the effects on the model (Byrne, 2010; Efron & Tibishiran, 1993). This method generates appropriate standard errors that aid a potential lack of multivariate normality. A total of 500 bootstrap subsamples were used, as recommended by Byrne (2010). The method showed no significant change in parameters, which means that an influence of non-normality can be excluded.

To test the fit of the full measurement model, a number of different fit indices can be used (Hair et al., 2014; Hu & Bentler, 1999; West et al., 2012; Yaşlıoğlu & Yaşlıoğlu, 2020). In general, the use of three to four fit indices represent a suitable evidence of model fit (Hair et al., 2014). Therefore, a common rule is that the researcher reports the  $\chi^2$  value and its associated degrees of freedom in form of the normed chi-square ( $\chi^2/df$ ) and supports this with at least one absolute and one incremental index in addition (Hair et al., 2014; Yaşlıoğlu & Yaşlıoğlu, 2020).

In this study three fit indices are used to test model fit for both samples. The normed chi-square is accompanied by the RMSEA, and CFI. Thus, the normed chi-square index is supported with one additional absolute fit index (RMSEA) and one incremental fit index (CFI) for the model fit test. The use of these three

fit indices was chosen because they are all most widely used and their combination is explicitly recommended for CFA and SEM by Hair et al. (2014). The model fit test of the full measurement model initially resulted in an almost sufficient fit for the local fan sample and in a sufficient fit for the international satellite fan sample. The table below compares the desired levels of the applied model fit indices and the fit results of the full measurement model of both samples.

*Table 10: Initial Full Measurement Model: Comparison of Desired Levels of Fit Indices and Indices Level in this Study*

Fit index	Desired index level		Index level of initial full measurement model	
			Local fan sample	International satellite fan sample
Normed chi-square ( $\chi^2/df$ )	< 3.0	(Bagozzi & Yi, 1988; Bentler & Bonett, 1980; Hair et al., 2014; Hu & Bentler, 1999)	3.009 (2061.172 / 685)	2.804 (1920.547 / 685)
Comparative fit index (CFI)	> 0.90		0.879	0.906
Root mean square error of approximation (RMSEA)	< 0.08 or even < 0.06		0.065	0.062
Comment: Index levels that do not reach the desired level are indicated by a grey background.				

By comparing the desired index levels to the actual index levels of the full measurement model of local fans in this study, it is noticeable that two of the three fit indices indicate insufficient fit. The desired ratio of 3:1 or less (Hair et al., 2014) between the observed chi-square (2061.172) and the degrees of freedom (685) has not yet been fully achieved ( $\chi^2/df = 3.009$ ). Moreover, the incremental fit index CFI (0.879) of the full measurement model has not reached the desired level of at least 0.90 (Bagozzi & Yi, 1988; Bentler & Bonett, 1980; Hair et al., 2014). CFI values close to 0.95 would show an even better model fit (Hu & Bentler, 1999). However, the desired level (< 0.08 or even < 0.06) of the RMSEA (Hair et al., 2014; Hu & Bentler, 1999) is met by

the local fan sample (0.065). It even corresponds to the more critical cut-off criteria close to the value 0.06 from Hu and Bentler (1999).

In contrast, the international satellite fan sample already fits the model. All indices demonstrate a sufficient model fit. The observed chi-square (1920.547) and the degrees of freedom (685) indicating an adequate model fit ( $\chi^2/df = 2.804$ ). In addition, the CFI (0.906) and RMSEA (0.062) also reached the desired index levels.

However, even if the satellite fan sample has already achieved model fit, both samples must have sufficient model fit to compare the two fan groups. Therefore, the initial measurement model must be revised before moving to SEM. The next subchapter will summarise how the initial measurement model was revised and retested.

#### 5.5.4 Validity Analysis for the Full Measurement Model

To search for weaknesses within the model and its constructs a validity analysis was performed. In subchapter 4.3.5.1, face validity and content validity were already discussed. This chapter concentrates on convergent and discriminant validity, which can both be evaluated statistically. While convergent validity tests whether the items of a construct have a high proportion of common variance and thus measure the same construct, discriminant validity examines the extent to which a construct differs from other constructs (Hair et al., 2014).

To test for convergent validity, the average variance extracted (AVE) can be calculated and used as an indicator. The AVE value should be 0.5 or higher to confirm convergent validity (Bagozzi & Yi, 1988; Fornell & Larcker, 1981; Hair



et al., 2014). In addition, the composite reliability (CR), which is also called construct reliability, can be determined to test the internal consistency of a construct. A CR value of 0.7 or higher indicates adequate reliability and CR values of 0.6 or higher still demonstrate an acceptable level (Bagozzi & Yi, 1988; Fornell & Larcker, 1981; Hair et al., 2014). Both AVE and CR were calculated for the constructs of the two samples. The following table therefore provides an overview of the convergent validity.

Table 11: Initial Convergent Validity Test

Constructs	Local fan sample		International satellite fan sample	
	AVE	CR	AVE	CR
Entertainment	0.474	0.782	0.401	0.726
Integration and Social Interaction	0.551	0.778	0.574	0.768
Personal Identity	0.566	0.836	0.618	0.864
Information	0.466	0.706	0.519	0.758
Remuneration	0.473	0.724	0.536	0.758
Empowerment	0.621	0.866	0.746	0.922
Consumption	0.605	0.820	0.514	0.757
Contribution	0.583	0.866	0.650	0.899
Creation	0.728	0.930	0.790	0.949
Attitudinal Loyalty	0.550	0.778	0.673	0.858
Behavioural Loyalty	0.599	0.816	0.568	0.792

Comment:  
Critical AVE and CR values are indicated by a grey background.

The table shows that three constructs in the local fan sample and one construct in the international satellite fan sample have a critical convergent validity. However, before evaluating the individual constructs and their items in combination with the underlying literature, the discriminant validity is additionally examined. To test discriminant validity the Fornell-Lacker criterion is applied. According to this criterion, the square root of each construct's AVE should exceed the value of the correlation between this construct and other latent constructs (Fornell & Larcker, 1981). The reason for this test is that a latent construct should explain the variance of its own indicator better than the

variance of other latent constructs. The Fornell-Lacker criterion was applied to both samples and is summarised in the following table.

Table 12: Initial Discriminant Validity Test

Local fan sample											
	Ent	Inte Soc	Pers	Info	Rem	Emp	Consump	Contrib	Creat	Attitud	Behav
Ent	<b>0.688</b>										
Inte Soc	0.569	<b>0.742</b>									
Pers	0.590	0.813	<b>0.753</b>								
Info	0.382	0.548	0.464	<b>0.682</b>							
Rem	0.410	0.392	0.377	0.341	<b>0.688</b>						
Emp	0.472	0.396	0.372	0.249	0.418	<b>0.788</b>					
Consump	0.412	0.600	0.553	0.651	0.276	0.374	<b>0.778</b>				
Contrib	0.274	0.262	0.315	0.100	0.322	0.429	0.379	<b>0.764</b>			
Creat	0.307	0.248	0.285	0.110	0.405	0.395	0.181	0.512	<b>0.853</b>		
Attitud	0.216	0.332	0.451	0.205	0.079	0.139	0.398	0.178	0.088	<b>0.741</b>	
Behav	0.306	0.249	0.398	0.038	0.354	0.119	0.141	0.366	0.417	0.215	<b>0.774</b>
International satellite fan sample											
	Ent	Inte Soc	Pers	Info	Rem	Emp	Consump	Contrib	Creat	Attitud	Behav
Ent	<b>0.633</b>										
Inte Soc	0.690	<b>0.740</b>									
Pers	0.622	0.846	<b>0.786</b>								
Info	0.501	0.569	0.487	<b>0.721</b>							
Rem	0.335	0.258	0.301	0.109	<b>0.732</b>						
Emp	0.401	0.286	0.348	0.046	0.664	<b>0.864</b>					
Consump	0.614	0.507	0.501	0.649	0.033	0.071	<b>0.717</b>				
Contrib	0.272	0.278	0.374	0.145	0.539	0.631	0.198	<b>0.806</b>			
Creat	0.240	0.188	0.333	0.003	0.553	0.540	0.089	0.613	<b>0.889</b>		
Attitud	0.312	0.499	0.648	0.327	0.185	0.233	0.424	0.292	0.268	<b>0.820</b>	
Behav	0.291	0.337	0.518	0.209	0.384	0.350	0.296	0.435	0.501	0.542	<b>0.753</b>
Comment: Critical values are indicated by a grey background.  The following abbreviations are used for the constructs in this table: entertainment (Ent), integration and social interaction (Inte Soc), personal identity (Pers), information (Info), remuneration (Rem), empowerment (Emp), consumption (Consump), contribution (Contrib), creation (Creat), attitudinal loyalty (Attitud) and behavioural loyalty (Behav).											

The Fornell-Lacker criterion indicates a reasonable discriminant validity in both samples. By comparing the square root of each construct's AVE with the latent variable correlations, only very few critical areas occur. However, in order to strengthen the overall validity of the individual constructs, the scales of the constructs were reviewed again, also taking into account the literature. This process also aimed to further strengthen the constructs that have already passed the previous validity tests but still contain weak items that weaken construct validity. This is done because robust construct validity is needed to

ensure that a set of items actually represent the theoretical latent construct that these items are intended to measure (Brown, 2015; Hair et al., 2014). Again, care was taken to always drop items for both samples to maintain comparability and to ensure that each construct consisted of at least three items so that the model is just-identified or even over-identified (Hair et al., 2014; Raykov et al., 2013).

To further increase the validity of individual constructs the first item of the construct entertainment (“... it is entertaining.”) was deleted, as this was evident from the data of both samples. The fourth item of personal identity (“... I share the same goals of other followers of my team.”), was removed, because identification refers to the person and not to other fans and is therefore not included in other scales of this construct (e.g. Buzeta et al., 2020; de Silva, 2019; Vale & Fernandes, 2018). Furthermore, the third item of empowerment (“... I want to influence the team to do, or to leave something.”), was deleted. The data showed that this item was only inappropriate for the local fan sample, but was deleted for both samples to maintain comparability.

Finally, the second (“... I “Like” comments related to my team.”) and sixth items (“... I repost pictures, videos or stories related to my team.”) of the construct contribution were removed. Apparently liking has a much lower impact making it almost part of the passive consumption activity (Tsai & Men, 2013, 2017), and the reposting option might have less importance for Instagram than for other social media platforms.

Again, these decisions were also justified theoretically, as the literature was taken into account for it. Subsequently, the tests for convergent and

discriminant validity were performed again. The results of these tests are summarised in the following.

Table 13: Final Convergent Validity Test

Constructs	Local fan sample		International satellite fan sample	
	AVE	CR	AVE	CR
Entertainment	0.515	0.760	0.432	0.695
Integration and Social Interaction	0.550	0.778	0.547	0.768
Personal Identity	0.657	0.844	0.687	0.866
Information	0.466	0.706	0.519	0.758
Remuneration	0.473	0.723	0.537	0.759
Empowerment	0.661	0.851	0.754	0.902
Consumption	0.605	0.820	0.514	0.757
Contribution	0.762	0.901	0.799	0.921
Creation	0.728	0.930	0.789	0.949
Attitudinal Loyalty	0.550	0.778	0.674	0.858
Behavioural Loyalty	0.599	0.816	0.567	0.792
Comment: Critical AVE and CR values are indicated by a grey background.				

The convergent validity of entertainment, personal identity, empowerment, and contribution increased in both samples, which confirms that the deleted items did not add any value to the constructs. The AVE of the construct entertainment in the local fan sample even increased over the desired minimum level of 0.5 (Bagozzi & Yi, 1988; Fornell & Larcker, 1981; Hair et al., 2014). Two constructs in the local fan sample and one construct in the international satellite fan sample still have a critical convergent validity according to their AVE.

However, Fornell and Larcker (1981) state that AVE is a more conservative measure of validity of the measurement model than composite reliability. Furthermore they underline that “on the basis of  $p_n$  (composite reliability) alone, the researcher may conclude that the convergent validity of the construct is adequate, even though more than 50% of the variance is due to error” (p. 46). Consequently, the convergent validity of the constructs

information and remuneration of the local fan sample and entertainment of the international satellite fan sample is also confirmed, as they have sufficient CR values.

Table 14: Final Discriminant Validity Test

Local fan sample											
	Ent	Inte Soc	Pers	Info	Rem	Emp	Consump	Contrib	Creat	Attitud	Behav
Ent	<b>0.718</b>										
Inte Soc	0.536	<b>0.742</b>									
Pers	0.552	0.803	<b>0.805</b>								
Info	0.300	0.548	0.447	<b>0.682</b>							
Rem	0.393	0.389	0.349	0.339	<b>0.688</b>						
Emp	0.437	0.400	0.352	0.256	0.373	<b>0.813</b>					
Consump	0.335	0.600	0.540	0.651	0.274	0.401	<b>0.778</b>				
Contrib	0.269	0.261	0.301	0.097	0.317	0.423	0.376	<b>0.873</b>			
Creat	0.323	0.248	0.273	0.110	0.403	0.377	0.181	0.508	<b>0.853</b>		
Attitud	0.186	0.332	0.446	0.205	0.078	0.143	0.398	0.176	0.087	<b>0.741</b>	
Behav	0.340	0.249	0.386	0.038	0.353	0.097	0.141	0.365	0.417	0.216	<b>0.774</b>
International satellite fan sample											
	Ent	Inte Soc	Pers	Info	Rem	Emp	Consump	Contrib	Creat	Attitud	Behav
Ent	<b>0.657</b>										
Inte Soc	0.693	<b>0.740</b>									
Pers	0.594	0.849	<b>0.829</b>								
Info	0.456	0.569	0.484	<b>0.721</b>							
Rem	0.387	0.258	0.273	0.109	<b>0.733</b>						
Emp	0.457	0.272	0.285	0.042	0.660	<b>0.868</b>					
Consump	0.565	0.507	0.488	0.651	0.034	0.054	<b>0.717</b>				
Contrib	0.303	0.274	0.343	0.143	0.534	0.627	0.195	<b>0.894</b>			
Creat	0.268	0.188	0.315	0.003	0.553	0.535	0.090	0.607	<b>0.888</b>		
Attitud	0.311	0.498	0.635	0.327	0.185	0.213	0.425	0.289	0.268	<b>0.821</b>	
Behav	0.309	0.336	0.498	0.209	0.385	0.331	0.296	0.430	0.501	0.541	<b>0.753</b>
Comment: Critical values are indicated by a grey background.  The following abbreviations are used for the constructs in this table: entertainment (Ent), integration and social interaction (Inte Soc), personal identity (Pers), information (Info), remuneration (Rem), empowerment (Emp), consumption (Consump), contribution (Contrib), creation (Create), attitudinal loyalty (Attitud) and behavioural loyalty (Behav).											

The discriminant validity of the constructs entertainment, personal identity, empowerment, and contribution were also strengthened. While few discriminant validity issues remain with motivations for social media engagement, these do not create critical issues in the validity of the model. Given the discriminant validity in each part of the model (motivation, social media engagement, and fan loyalty) and the robustness of the constructs demonstrated by convergent validity, there is sufficient evidence to confirm the

overall validity of all constructs in the measurement model. In the following subchapter, the model fit of the revised measurement model is tested.

### 5.5.5 Model Fit of Revised Full Measurement Model

In the previous subchapter the measurement model was revised. Items were removed to strengthen the validity of various constructs. These decisions can also be theoretically justified in the literature and find their origin in items that were unsuccessfully adjusted for this study and differences between local and satellite fans. In this subchapter, the model fit of the revised full measurement model is tested. Again, the fit indices of normed chi-square, CFI, and RMSEA were calculated in AMOS (Bagozzi & Yi, 1988; Bentler & Bonett, 1980; Hair et al., 2014; Hu & Bentler, 1999).

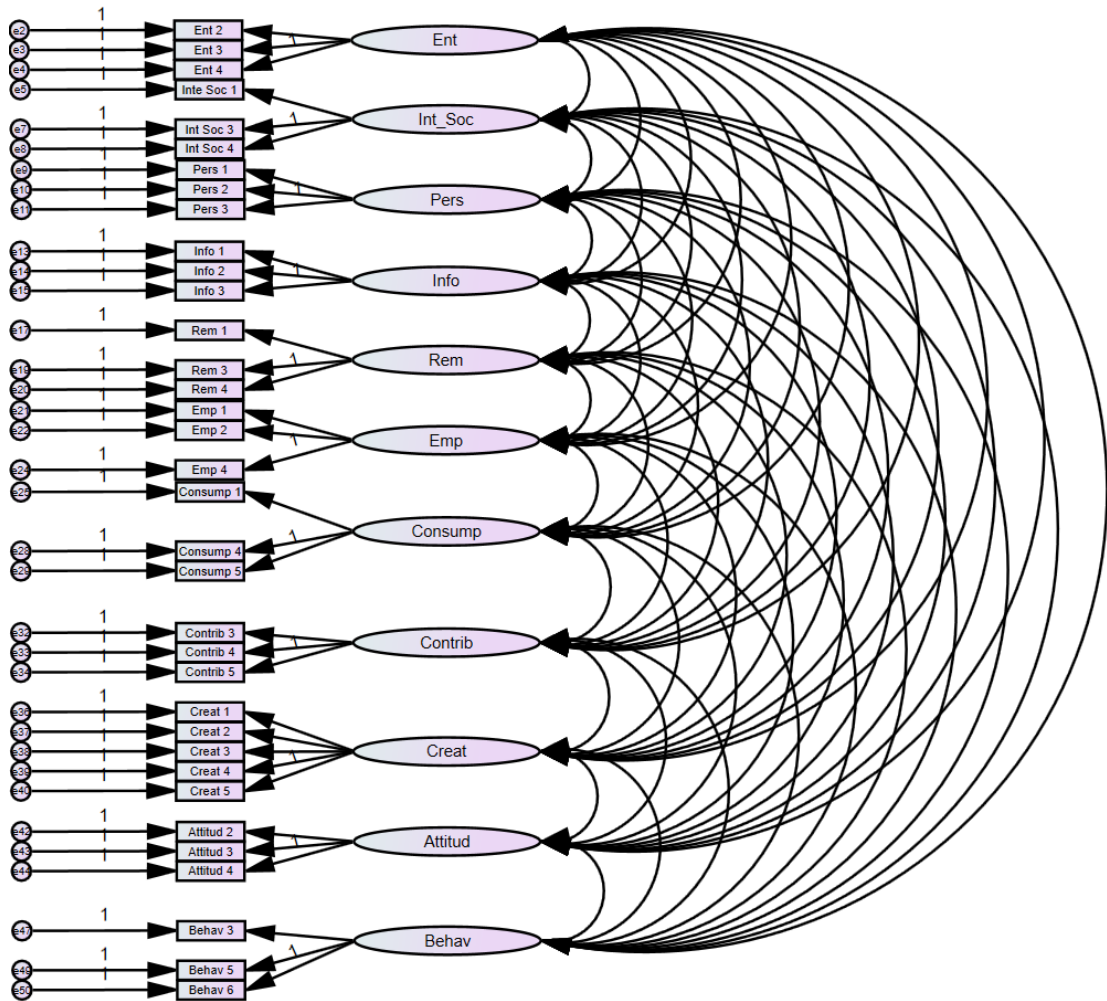
*Table 15: Revised Full Measurement Model: Comparison of Desired Levels of Fit Indices and Indices Level in this Study*

Fit index	Desired index level		Index level of revised full measurement model	
			Local fan sample	International satellite fan sample
Normed chi-square ( $\chi^2/df$ )	< 3.0	(Bagozzi & Yi, 1988; Bentler & Bonett, 1980; Hair et al., 2014; Hu & Bentler, 1999)	2.530 (1277.669 / 505)	2.570 (1298.013 / 505)
Comparative fit index (CFI)	> 0.90		0.921	0.930
Root mean square error of approximation (RMSEA)	< 0.08 or even < 0.06		0.057	0.058
Comment: Index levels that do not reach the desired level are indicated by a grey background.				

After the revision of the measurement model, both samples show a sufficient model fit. For the local fan sample the observed chi-square (1277.669) and the degrees of freedom (505) reached the desired ratio of 3:1 or less ( $\chi^2/df = 2.530$ ). Furthermore, both CFI (0.921) and RMSEA (0.057) reach their desired index levels and thus confirm a sufficient model fit for the local fan sample.

Although the satellite fan sample already achieved sufficient agreement with the initial measurement model, the fit indices of the sample were significantly improved by the revision. For the international satellite fan sample, the observed chi-square (1298.013) and the degrees of freedom (505) indicating an even better model fit ( $\chi^2/df = 2.570$ ) with the revised measurement model. In addition, the CFI (0.930) and RMSEA (0.058) also show an improved model fit than with the initial measurement model. The following figure shows the final full measurement model in AMOS.

Figure 15: Final Full Measurement Model in AMOS



Because the measurement model is valid for both samples, it can be moved to the last two stages of the six-stage process for SEM of Hair et al. (2014). In stage five, the measurement model is converted to the structural model and in stage six the validity of the structural model is assessed (Hair et al., 2014). Both stages are applied in the next subchapter.

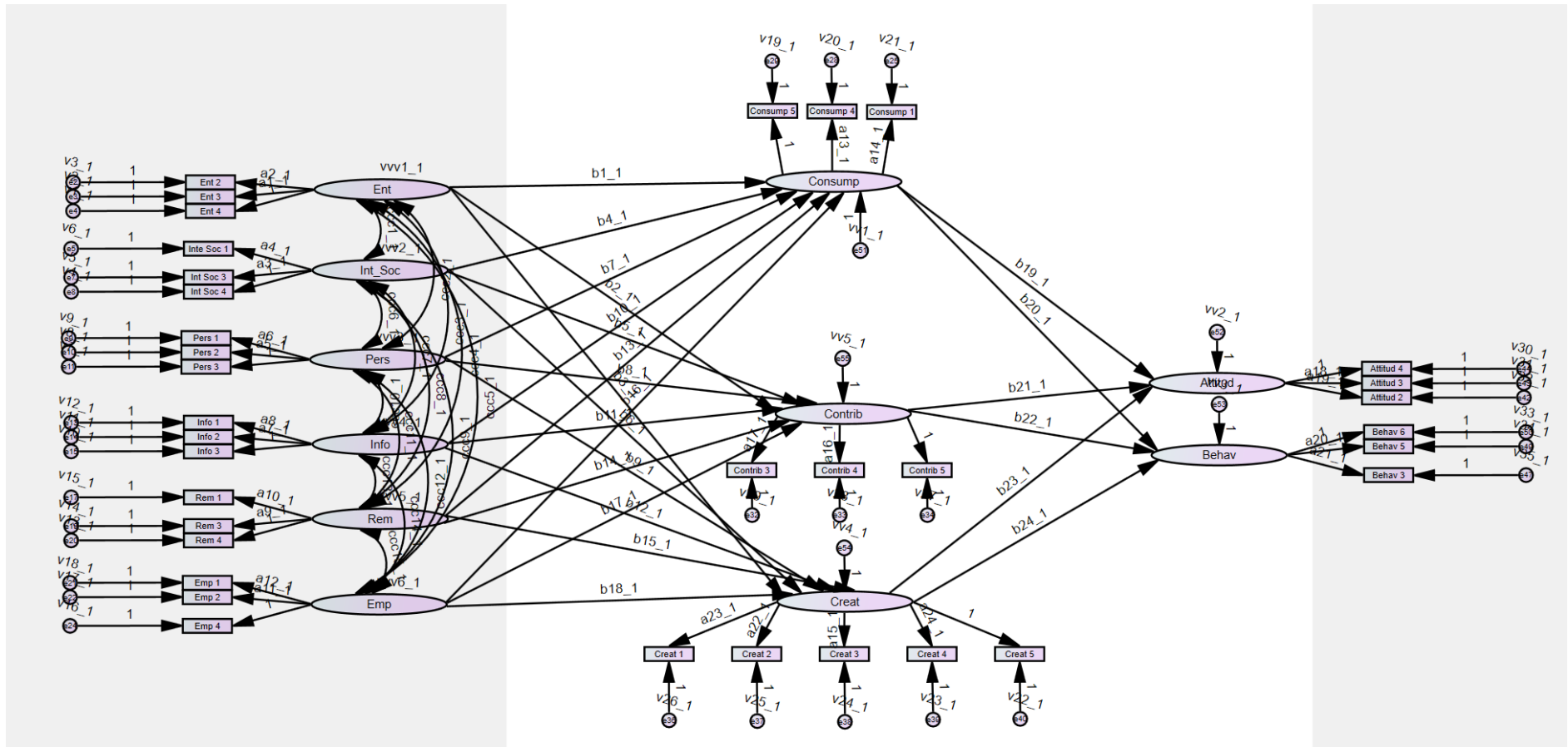
## 5.6 Assessment of the Structural Model

### 5.6.1 Model Fit of the Structural Model

After the measurement model shows a sufficient model fit in the CFA, it can be continued with SEM (Hair et al., 2014). SEM establishes causal relationships according to the conceptual model and tests to which extent the model is supported by the sample data (Schumacker & Lomax, 2004). Therefore, the measurement model was converted in AMOS into the structural model. The figure below presents the structural model in AMOS.



Figure 16: Structural Model in AMOS



After stage five of the six-stage process for SEM of Hair et al. (2014) has been completed, the assessment of the structural model can be finally started. First, the model fit of the structural model must be checked before starting hypothesis testing. The structural model was specified in AMOS and the fit indices of normed chi-square, CFI, and RMSEA were calculated for both samples and compared to the desired index levels (Bentler & Bonett, 1980; Hair et al., 2014; Hu & Bentler, 1999).

Table 16: Structural Model: Comparison of Desired Levels of Fit Indices and Indices Level in this Study

Fit index	Desired index level		Index level of structural model	
			Local fan sample	International satellite fan sample
Normed chi-square ( $\chi^2/df$ )	< 3.0	(Bagozzi & Yi, 1988; Bentler & Bonett, 1980; Hair et al., 2014; Hu & Bentler, 1999)	2.824 (1471.063 / 521)	2.899 (1510.210 / 521)
Comparative fit index (CFI)	> 0.90		0.903	0.912
Root mean square error of approximation (RMSEA)	< 0.08 or even < 0.06		0.062	0.064
Comment: Index levels that do not reach the desired level are indicated by a grey background.				

Any fit indices of the structural model also show excellent model fit for both samples. The model fit of the local fan sample is confirmed by adequate index levels of the normed chi-square ( $\chi^2/df = 2.824$ ), CFI (0.903), and RMSEA (0.062). For the international satellite fan sample the model fit of the structural model is also approved by sufficient index levels of the normed chi-square ( $\chi^2/df = 2.899$ ), CFI (0.912), and RMSEA (0.064). Therefore, it can be concluded that also the structural model is valid for both samples and the researcher can proceed with hypothesis testing as well as its interpretation (Hair et al., 2014).

### 5.6.2 Comparison of Local Fans and International Satellite Fans in the Structural Model

By having ensured that the data fit the structural model, the comparison between the local fans and international satellite fans can finally begin. To test the hypotheses and compare the two samples, chi-square difference tests were performed. In SEM, the chi-square difference test is the traditional approach for detecting noninvariance. In this test, the difference between the chi-square values for the configural model and another model in which equality constraints have been specified for certain parameters is examined statistically. If this chi-square difference value is statistically significant, it is considered evidence of noninvariance (Byrne, 2010). Consequently, the chi-square difference test is often applied in the literature to perform multi-group analysis (e.g. Beaudoin & Thorson, 2006; Chambel et al., 2016; Floh & Treiblmaier, 2006; Sihombing, 2012).

Therefore, the chi-square difference test is also applied in this study to compare the two groups of local fans and international satellite fans with each other. This test was performed for each hypothesis to examine for the multiple-group effect. For each chi-square difference test, the two models were freely estimated, except that the path to be examined was constrained to be equal across groups. This means that for each hypothesis test a different path was always constrained. In addition, the standardized coefficients were used to describe the effect size of each path for the two fan groups. The following Table 17 summarises the results of the chi-square difference tests as well as the standardized coefficients of the respective paths tested for both samples.

Based on the results in this table, the hypotheses are confirmed or rejected in the following sections.

Table 17: Standardized Coefficients and Statistical Significance of the Chi-Square Difference Test

Path relationship	Local fan sample		International satellite fan sample		Difference in standardized coefficients	P-value for chi-square difference test
	Standardized coefficient ( $\beta$ ) of path	P-value for statistical significance	Standardized coefficient ( $\beta$ ) of path	P-value for statistical significance		
Ent → Consump	-0.076	0.225	0.406	***	0.482	***
Ent → Contrib	-0.025	0.706	-0.068	0.390	0.043	0.717
Ent → Creat	0.080	0.242	0.003	0.976	0.077	0.497
Inte_Soc → Consump	0.151	0.128	-0.326	0.036	0.477	0.008
Inte_Soc → Contrib	-0.112	0.287	-0.358	0.005	0.246	0.248
Inte_Soc → Creat	-0.114	0.289	-0.492	***	0.378	0.117
Pers → Consump	0.236	0.008	0.447	***	0.211	0.718
Pers → Contrib	0.271	0.004	0.457	***	0.186	0.786
Pers → Creat	0.192	0.048	0.602	***	0.410	0.501
Info → Consump	0.446	***	0.479	***	0.033	0.828
Info → Contrib	-0.096	0.118	0.121	0.030	0.217	0.014
Info → Creat	-0.121	0.058	-0.046	0.430	0.075	0.225
Rem → Consump	-0.051	0.343	-0.140	0.041	0.089	0.214
Rem → Contrib	0.213	***	0.204	***	0.009	0.983
Rem → Creat	0.328	***	0.345	***	0.017	0.917
Emp → Consump	0.202	***	-0.083	0.250	0.285	0.001
Emp → Contrib	0.345	***	0.497	***	0.152	0.534
Emp → Creat	0.243	***	0.289	***	0.046	0.578
Consump → Attitud	0.381	***	0.475	***	0.094	***
Consump → Behav	0.028	0.594	0.294	***	0.266	0.035
Contrib → Attitud	0.054	0.261	0.106	0.031	0.052	0.121
Contrib → Behav	0.203	***	0.153	0.003	0.050	0.143
Create → Attitud	-0.011	0.822	0.173	***	0.184	0.002
Create → Behav	0.315	***	0.393	***	0.078	0.777

Comment:  
P-values that are less than 0.001 are marked with \*\*\*.  
Non-significant p-values are indicated by a grey background.

### 5.6.3 Support and Rejection of the Hypotheses

#### 5.6.3.1 *Entertainment and Social Media Engagement Activities*

Hypothesis 1 proposed that the influence of entertainment on the social media engagement activities (a) consumption, (b) contribution, and (c) creation is greater for international satellite fans than local fans. Using the results of Table 17, the following points stand out.

There is a statistically significant difference in the influence of entertainment on (a) consumption between local and international satellite fans. The standardized coefficients indicate that entertainment has a small, statistically non-significant negative effect on (a) consumption for local fans ( $\beta = -0.076$ ,  $p = 0.225$ ), whereas there is a larger, statistically significant positive effect of entertainment on (a) consumption for international satellite fans ( $\beta = 0.406$ ,  $p < 0.001$ ). Consequently, H1a is supported.

However, there is no statistically significant difference in the influence of entertainment on (b) contribution and (c) creation between local and international satellite fans. Therefore, H1b and H1c are both rejected. Since one of the three sub-hypotheses of hypothesis 1 is supported, this hypotheses is partially supported.

#### 5.6.3.2 *Integration and Social Interaction and Social Media Engagement Activities*

Hypothesis 2 suggested that the influence of integration and social interaction on the social media engagement activities (a) consumption, (b) contribution

and, (c) creation is greater for international satellite fans than local fans. By interpreting the results of Table 17, the following can be outlined.

There is a statistically significant difference in the influence of integration and social interaction on (a) consumption between local and international satellite fans. The standardized coefficients indicate that integration and social interaction has a smaller, statistically non-significant positive effect on (a) consumption for local fans ( $\beta = 0.151$ ,  $p = 0.128$ ), whereas there is a larger, statistically significant negative effect of integration and social interaction on (a) consumption for international satellite fans ( $\beta = -0.326$ ,  $p = 0.036$ ). As a result, H2a is supported

However, there is a no statistically significant difference in the influence of integration and social interaction on (b) contribution and (c) creation between local and international satellite fans. The standardized coefficients indicate that integration and social interaction has a smaller, statistically non-significant negative effect on (b) contribution ( $\beta = -0.112$ ,  $p = 0.287$ ) and (c) creation ( $\beta = -0.114$ ,  $p = 0.289$ ) for local fans, whereas there is a larger, statistically significant negative effect of integration and social interaction on (b) contribution ( $\beta = -0.358$ ,  $p = 0.005$ ) and (c) creation ( $\beta = -0.492$ ,  $p < 0.001$ ) for international satellite fans. However, as these differences are not statistically significant H2b and H2c are rejected. Because one of the three sub-hypotheses of hypothesis 2 is supported, it is partially supported.

### *5.6.3.3 Personal Identity and Social Media Engagement Activities*

Hypothesis 3 claimed that there are no differences between the influence of personal identity on the social media engagement activities (a) consumption,

(b) contribution, and (c) creation between local fans and international satellite fans. The results of Table 17 lead to the outcomes below.

There is no statistically significant difference in the influence of personal identity on (a) consumption, (b) contribution, and (c) creation between local and international satellite fans. In the case of personal identity and (c) creation it is striking that the standardized coefficients indicated that personal identity has a smaller, statistically significant positive effect on (c) creation for local fans ( $\beta = 0.192$ ,  $p = 0.048$ ), whereas there is a larger, statistically significant positive effect of personal identity on (c) creation for international satellite fans ( $\beta = 0.602$ ,  $p < 0.001$ ). However, since for all three paths the chi-square difference test did not show statistical significance, H3a, H3b, and H3c are all confirmed. Consequently, hypothesis 3 is supported.

#### *5.6.3.4 Information and Social Media Engagement Activities*

Hypothesis 4 proposed that the influence of information on the social media engagement activities (a) consumption, (b) contribution, and (c) creation is greater for international satellite fans than local fans. The following is indicated by the data in Table 17.

There is a statistically significant difference in the influence of information on (b) contribution between local and international satellite fans. The standardized coefficients indicate that information has a smaller, statistically non-significant negative effect on (b) contribution for local fans ( $\beta = -0.096$ ,  $p = 0.118$ ), whereas there is a larger, statistically significant positive effect of information on (b) contribution for international satellite fans ( $\beta = 0.121$ ,  $p = 0.030$ ). Thus, H4b is supported.



However, there is a no statistically significant difference in the influence of information on (a) consumption and (c) creation between local and international satellite fans. Therefore, H4a and H4c are both rejected. Since one of the three sub-hypotheses of hypothesis 4 is supported, this hypothesis is partially supported.

#### *5.6.3.5 Remuneration and Social Media Engagement Activities*

Hypothesis 5 contended that the influence of remuneration on the social media engagement activities (a) consumption, (b) contribution, and (c) creation is greater for local fans than international satellite fans. Based on the data in Table 17, the following can be stated.

There is no statistically significant difference in the influence of remuneration on (a) consumption, (b) contribution, and (c) creation between local and international satellite fans. However, in the case of remuneration and (a) consumption the standardized coefficients indicate a statistically non-significant negative effect for local fans ( $\beta = -0.051$ ,  $p = 0.343$ ) and a statistically significant negative effect for international satellite fans ( $\beta = -0.140$ ,  $p = 0.041$ ). Nevertheless, as for all three paths the chi-square difference test did not show statistical significance, H5a, H5b, and, H5c are all rejected. This leads to the rejection of hypothesis 5.

#### *5.6.3.6 Empowerment and Social Media Engagement Activities*

Hypothesis 6 suggested that the influence of empowerment on the social media engagement activities (a) consumption, (b) contribution, and (c) creation is greater for local fans than international satellite fans. Based on Table 17, the results below can be noted.

There is a statistically significant difference in the influence of empowerment on (a) consumption between local and international satellite fans. The standardized coefficients indicate that empowerment has a larger, statistically significant positive effect on (a) consumption for local fans ( $\beta = 0.202$ ,  $p < 0.001$ ), whereas there is a smaller, statistically non-significant negative effect of empowerment on (a) consumption for international satellite fans ( $\beta = -0.083$ ,  $p = 0.250$ ). Thus, H6a is supported.

However, there is no statistically significant difference in the influence of remuneration on (b) contribution and (c) creation between local and international satellite fans. As a result, H6b and H6c are both rejected. Because one of the three sub-hypotheses of hypothesis 6 is supported, hypothesis 6 is partially supported.

#### *5.6.3.7 Consumption Activity Level and Fan Loyalty*

Hypothesis 7 claimed that the influence of consumption social media engagement activities (a) on attitudinal loyalty is greater for international satellite fans than local fans and (b) on behavioural loyalty is greater for local fans than international satellite fans. According to the data in Table 17, the following conclusions can be drawn.

There is a statistically significant difference in the influence of consumption on (a) attitudinal loyalty between local and international satellite fans. The standardized coefficients indicate that consumption has a smaller, statistically significant positive effect on (a) attitudinal loyalty for local fans ( $\beta = 0.381$ ,  $p < 0.001$ ), whereas there is a larger, statistically significant positive effect of

consumption on (a) attitudinal loyalty for international satellite fans ( $\beta = 0.475$ ,  $p < 0.001$ ). Therefore, H7a is supported.

Concerning the influence of consumption on (b) behavioural loyalty, there is a statistically significant difference between local and international satellite fans. The standardized coefficients indicate that consumption has a small, statistically non-significant positive effect on (b) behavioural loyalty for local fans ( $\beta = 0.028$ ,  $p = 0.594$ ), whereas there is a larger, statistically significant positive effect of consumption on (b) behavioural loyalty for international satellite fans ( $\beta = 0.294$ ,  $p < 0.001$ ). Thus, H7b is rejected. As one of two sub-hypotheses of hypothesis 7 is supported, it is partially supported.

#### *5.6.3.8 Contribution Activity Level and Fan Loyalty*

Hypotheses 8 proposed that the influence of contribution social media engagement activities (a) on attitudinal loyalty is greater for international satellite fans than local fans and (b) on behavioural loyalty is greater for local fans than international satellite fans. By considering Table 17, the following can be outlined.

There is no statistically significant difference in the influence of contribution on (a) attitudinal loyalty between local and international satellite fans. However, the standardized coefficients indicate a statistically non-significant positive effect for local fans ( $\beta = 0.054$ ,  $p = 0.261$ ) and a statistically significant positive effect for international satellite fans ( $\beta = 0.106$ ,  $p = 0.031$ ). In addition, there is also no statistically significant difference in the influence of contribution on (b) behavioural loyalty between local and international satellite fans.

Consequently, both sub-hypotheses H8a and H8b as well as the main hypothesis 8 are rejected.

#### *5.6.3.9 Creation Activity Level and Fan Loyalty*

Hypotheses 9 contended that the influence of creation social media engagement activities is greater for local fans than international satellite fans on (a) attitudinal loyalty and (b) behavioural loyalty. Again, by using the results of Table 17, the following is striking.

There is a statistically significant difference in the influence of creation on (a) attitudinal loyalty between local and international satellite fans. The standardized coefficients indicate that creation has a small, statistically non-significant negative effect on (a) attitudinal loyalty for local fans ( $\beta = -0.011$ ,  $p = 0.822$ ), whereas there is a larger, statistically significant positive effect of creation on (a) attitudinal loyalty for international satellite fans ( $\beta = 0.173$ ,  $p < 0.001$ ). Therefore, H9a is rejected.

Concerning the influence of creation on (b) behavioural loyalty there is no statistically significant difference between local and international satellite fans. Thus, also H9b is rejected. Since both sub-hypotheses are rejected, hypothesis 9 is also rejected.

After all hypotheses have been tested, the following section summarises the main findings of this chapter and lists the number of supported and rejected sub- and main hypotheses. Further implications are discussed in chapter 6.

## 5.7 Chapter Summary

This chapter discussed the analysis of the survey data and explained the applied statistics. It was shown that the sample of this study is representative of local NHL fans and German satellite fans of the NHL. In addition, it has been demonstrated by the CFA and SEM that the conceptual model of this study is valid.

Furthermore, the assessment of the relationship between the constructs as well as the chi-square difference test gave statistical evidence for eight sub-hypotheses. In contrast, 16 sub-hypotheses were rejected. This resulted in support of one main hypothesis, partial support of five main hypothesis and rejection of another three main hypotheses. Through these results, numerous similarities and differences between local and international satellite fans were identified. In the next chapter, these similarities and differences are related to the literature as well as interpreted and discussed in more detail on this basis. An overview of the supported and rejected hypotheses is provided in the table below.

Table 18: Overview of Supported and Rejected Hypotheses

Hypothesis	Sub-hypothesis and path relationship	Support or rejection of sub-hypothesis	Support or rejection of main hypothesis
H1: The influence of entertainment on the social media engagement activities (a) consumption, (b) contribution and (c) creation is greater for international satellite fans than local fans.	H1a: Ent → Consump	Supported	Partially supported
	H1b: Ent → Contrib	Rejected	
	H1c: Ent → Creat	Rejected	
H2: The influence of integration and social interaction on the social media engagement activities (a) consumption, (b) contribution and (c) creation is greater for international satellite fans than local fans.	H2a: Inte_Soc → Consump	Supported	Partially supported
	H2b: Inte_Soc → Contrib	Rejected	
	H2c: Inte_Soc → Creat	Rejected	
H3: There are no differences between the influence of personal identity on the social media engagement activities (a) consumption, (b) contribution and (c) creation between local fans and international satellite fans.	H3a: Pers → Consump	Supported	Supported
	H3b: Pers → Contrib	Supported	
	H3c: Pers → Creat	Supported	
H4: The influence of information on the social media engagement activities (a) consumption, (b) contribution and (c) creation is greater for international satellite fans than local fans.	H4a: Info → Consump	Rejected	Partially supported
	H4b: Info → Contrib	Supported	
	H4c: Info → Creat	Rejected	
H5: The influence of remuneration on the social media engagement activities (a) consumption, (b) contribution and (c) creation is greater for local fans than international satellite fans.	H5a: Rem → Consump	Rejected	Rejected
	H5b: Rem → Contrib	Rejected	
	H5c: Rem → Creat	Rejected	
H6: The influence of empowerment on the social media engagement activities (a) consumption, (b) contribution and (c) creation is greater for local fans than international satellite fans.	H6a: Emp → Consump	Supported	Partially supported
	H6b: Emp → Contrib	Rejected	
	H6c: Emp → Creat	Rejected	

Table 18: Overview of Supported and Rejected Hypotheses (continued)

H7: The influence of consumption social media engagement activities (a) on attitudinal loyalty is greater for international satellite fans than local fans and (b) on behavioural loyalty is greater for local fans than international satellite fans.	H7a: Consump → Attitud	Supported	Partially supported
	H7b: Consump → Behav	Rejected	
H8: The influence of contribution social media engagement activities (a) on attitudinal loyalty is greater for international satellite fans than local fans and (b) on behavioural loyalty is greater for local fans than international satellite fans.	H8a: Contrib → Attitud	Rejected	Rejected
	H8b: Contrib → Behav	Rejected	
H9: The influence of creation social media engagement activities is greater for local fans than international satellite fans on (a) attitudinal loyalty and (b) behavioural loyalty.	H9a: Create → Attitud	Rejected	Rejected
	H9b: Create → Behav	Rejected	

## **6 Discussion and Synthesis**

### **6.1 Chapter Overview**

Since the objective of this study is to shed light on the motivations, social media engagement, and its influence on fan loyalty of international satellite fans in comparison to local fans on the basis of U&G theory, the findings of these fan groups are discussed in this chapter. In particular, this chapter discusses the research aim, theoretical model, and underlying hypotheses in relation with the findings of the statistical analysis. Within this synthesis the findings of this study are critically evaluated, compared to the extant literature in the related research areas, and interpreted.

The chapter concludes with a summary of the key findings for local fans, international satellite fans, and the overall comparison of both fan groups. This is supported by an overview of the significant and non-significant hypotheses, which are highlighted accordingly in the research model for local and international satellite fans.

### **6.2 Discussion and Synthesis of the Hypotheses**

After the data analysis and hypothesis testing were conducted in chapter 5, this chapter provides the discussion of the hypotheses based on different studies and sources. This synthesis is first done for the hypotheses that examine the relationship between motivations for media use and COBRAs. This is followed by the synthesis for the hypotheses that examine the relationship between COBRAs and fan loyalty. In order to recall the



hypotheses established in chapter 3 for each synthesis, they are briefly listed in each discussion.

#### 6.2.1 Hypotheses about the Relationship Between Motivations for Media Use and Consumers' Online Brand-Related Activities

It was already mentioned in chapter 3 that a total of 12 different studies were identified that examine the U&G motivations in relation to online engagement levels (see chapter 3.3.3). These studies have already been used to generate the hypotheses and will also be used in this chapter together with additional sources to synthesize the hypotheses.

The research on the relationship between social media motivations and COBRAs partly show inconsistencies in their results, which could be due to the different samples and social media channels investigated. For example, while some studies examined social media followers of various brand pages (Buzeta et al., 2020; Muntinga, 2013, 2016; Muntinga et al., 2011; Tsai & Men, 2013, 2017; Yesiloglu et al., 2021), other studies investigated more specific social media user groups such as followers of banking brands (Mishra, 2021), followers of automobile, food and restaurant brands (Piehler et al., 2019), or sports fans that follow a specific basketball league (Saridakis et al., 2016) or football club (Vale & Fernandes, 2018). Additionally, some studies also limit their examined social media users to specific countries, such as the US (Buzeta et al., 2020), the Netherlands (Muntinga et al., 2011), or Germany (Piehler et al., 2019), which can generally also lead to different results between studies due to cultural differences (Kitirattarkarn et al., 2020).

Furthermore, the identified studies investigate users of different social media platforms. While Facebook is represented with the most studies (Buzeta et al., 2020; Mishra, 2021; Piehler et al., 2019; Tsai & Men, 2013, 2017; Vale & Fernandes, 2018; Yesiloglu et al., 2021), Instagram, Reddit, YouTube (Buzeta et al., 2020), Twitter (Yesiloglu et al., 2021), Hyves (Muntinga, 2013, 2016; Muntinga et al., 2011), Sina Weibo, and Renren (Tsai & Men, 2017) were also examined. The following subchapters compare the results of these studies with the findings of the present study, which examines local NHL fans and German satellite fans on Instagram.

#### *6.2.1.1 Synthesis of Entertainment and Consumers' Online Brand-Related Activities*

Hypothesis 1 concentrates on the paths from entertainment to the consumption, contribution, and creation activity level. This hypothesis evaluated whether the need for entertaining content influenced the participants' online brand activities on NHL-related Instagram accounts, particularly focusing on consumption, contribution, and creation of content to these accounts. For the **local** fan sample, entertainment was not a statistically significant influence for all three paths, indicating that **local** fans' need for entertainment does not influence their online activities on NHL Instagram accounts.

This extends the findings of Vale and Fernandes (2018), who found that for Facebook followers of football clubs the need for entertainment is not significant at any COBRA level. They suggested that entertaining content might be not relevant for sports fans as they are mainly interested in the club

itself. This study thus adds to the sports management literature that entertaining social media content is not relevant for **local** fans on Instagram. In addition, De Vries et al. (2012) found that entertaining brand posts have no influence on the contribution activity level. However, the findings of the **local** fan sample are challenging several studies that identified a positive influence of the entertainment motivation on the consumption activity level (Buzeta et al., 2020; Piehler et al., 2019; Saridakis et al., 2016; Shao, 2009) or on every COBRA level (Muntinga, 2013, 2016; Muntinga et al., 2011). Therefore, there is no clear consensus on this in the social media literature and the influence of the entertainment motivation could depend on the sample or the investigated social media platform.

For the international **satellite** fans, the influence for entertainment on consumption was statistically significant, but not for contribution or creation. These results indicate that international **satellite** fans' need for entertainment does influence their consumption of NHL content on Instagram, but not their contribution or creation of content. This is in line with various studies (Buzeta et al., 2020; Piehler et al., 2019; Saridakis et al., 2016; Shao, 2009). In this context, the study by Saridakis et al. (2016) is of particular note, as they also identified this effect for sports fans, but of basketball and not ice hockey. In contrast to these sports fans results, Vale and Fernandes (2018) found no influence of entertainment on social media engagement for football fans. This study thus extends the sports management literature by outlining this influence specifically for international **satellite** fans of the NHL. However, the results of this study on international **satellite** fans also challenge the findings of other

social media studies that the need for entertainment has an impact on each COBRA level (Muntinga, 2013, 2016; Muntinga et al., 2011).

Hypothesis 1 predicted that the influence of entertainment on the social media engagement activities (a) consumption, (b) contribution, and (c) creation is greater for international **satellite** fans than **local** fans.

H1a was supported as entertainment has a significant effect on consumption for international **satellite** fans, but not for **local** fans. This might be as international **satellite** fans are highly dependent on social media and have in contrast to **local** fans almost no other source to consume entertaining NHL content (Kerr & Gladden, 2008; Li et al., 2017; Pu & James, 2017). This is also supported by Li et al. (2019), who found the need for entertainment is a stronger motivation for geographically distant Chinese NBA fans to use social media than for NBA fans from the United States. However, this study provided further new findings, as the influence of entertainment on different engagement levels was additionally investigated.

In contrast, **local** fans have more opportunities to receive entertainment from their favourite NHL team, such as attending home games, meeting other **local** fans, or consuming media coverage of the local newspaper and radio show (Kolbe & James, 2000; Wann, 2006b). Thus, there is no relationship between **local** fans' need for entertainment and their consumption of social media, as they may get their entertainment from other areas.

H1b and H1c were both rejected as there is no significant influence from entertainment on the contribution and creation activity level for **local** and international **satellite** fans. Although some studies have found an impact of

entertainment on contribution and creation (Muntinga, 2013, 2016; Muntinga et al., 2011), other studies have identified no relationship (Buzeta et al., 2020; Piehler et al., 2019; Saridakis et al., 2016; Shao, 2009; Vale & Fernandes, 2018), which is also consistent with the findings of this study. Shao (2009) already underlined that the need for entertainment can be fulfilled by only consuming content on social media and without having to engage in contribution or creation activities. Consequently, entertainment only influences lowly-engaging brand-related social media activities and does not require interactive behaviour (Buzeta et al., 2020; Saridakis et al., 2016). Social media users who like, share, or comment on entertaining content do so not to satisfy their need for entertainment, but to fulfil their need for social interaction (Piehler et al., 2019). To conclude, hypothesis 1 was partially supported as its sub-hypothesis H1a was supported, but H1b and H1c were both rejected.

#### *6.2.1.2 Synthesis of Integration and Social Interaction and Consumers' Online Brand-Related Activities*

Hypothesis 2 investigates the paths from integration and social interaction to the consumption, contribution, and creation activity level. This hypothesis examined whether the need to belong to a community and meet like-minded others influenced the participants' online brand activities on NHL-related Instagram accounts, particularly focusing on consumption, contribution, and creation engagement on these accounts. For the **local** fan sample, integration and social interaction does not influence their online activities on NHL Instagram accounts.

These results extend the findings of Tsai and Men (2013) who also found no relationship between integration and social interaction and social media engagement. However, this challenges the results of studies that identified a significant effect of the need for integration and social interaction on contribution (Shao, 2009), contribution and creation (Muntinga et al., 2011; Saridakis et al., 2016), or even all three COBRA levels (Muntinga, 2013, 2016; Piehler et al., 2019; Vale & Fernandes, 2018).

These findings indicate that **local** fans do not consume, like, comment on, share, or create content of their favourite team on Instagram to connect and interact with other fans or their favourite team itself, which is new in the literature. One possible explanation for this finding could be that **local** fans have unrestricted access to other fans and are surrounded by **local** fans of their favourite team inside and outside the stadium (Wann, 2006b; Wann & Martin, 2011; Wann et al., 2008). The **local** fans' need for integration and social interaction may therefore already be satisfied by their social contacts and integration opportunities in the real world and are therefore not motivated by this need to engage in social media.

In contrast, for the international **satellite** fans there is a significant negative effect of integration and social interaction on all COBRA levels. These results indicate that international **satellite** fans' need for integration and social interaction decrease their consumption, contribution, and creation of NHL content on Instagram. This is rather surprising, as most studies found a positive effect from this motivation on creation (Shao, 2009), contribution and creation (Muntinga et al., 2011; Saridakis et al., 2016), or all COBRA levels

(Muntinga, 2013, 2016; Piehler et al., 2019; Vale & Fernandes, 2018). So far, only one study found a negative effect of integration and social interaction, and that was on the creation activity level (Buzeta et al., 2020). This is therefore an important new finding for the literature.

According to the findings of this study, the need for integration and social interaction of international **satellite** fans has a negative impact on their Instagram engagement with their favourite team. This negative effect even increases from consumption to contribution to creation activity level. It could be that international **satellite** fans are very reluctant to interact with other fans, perhaps especially with **local** fans who are assumed to be better, more loyal, and the only true fans of their favourite team (Bridgewater, 2010; Hognestad, 2009). These prejudices could diminish **satellite** fans' perceived chances for achieving integration into their teams fan nation even in an anonymous digital media setting, especially since they know that they are different from their **local** counterparts (Hognestad, 2006). However, **local** fans who are more familiar with foreign fans view them already as just another type of fan of their favourite team (Hognestad, 2003, 2006; Nash, 2000). Perhaps the integration of foreign fans needs to be officially supported by the favourite team and publicly accepted by the **local** fan base, so that **satellite** fans are encouraged to actively connect with other fans via digital media in the future.

Furthermore, this negative effect of integration and social interaction on social media engagement could be caused by the feeling of uniqueness on which fandom of **satellite** fans is often based (Andrijiw & Hyatt, 2009; Sveinson & Hoeber, 2016). This raises the question of whether international **satellite** fans

even want to be integrated into the *Global Sports Fan Nation* of their favourite team if they consciously set themselves apart from **local** sports fans from their geographic region. Nevertheless, social interaction is considered to be a significant driver for **satellite** fans' behavioural intentions, such as watching matches or purchasing merchandise (Miranda et al., 2021).

Another possible reason for this negative effect are not necessarily the **satellite** fans, but the characteristics of Instagram. The social media platform of Instagram is designed primarily for branding (Doyle et al., 2022; Keenan, 2022), rather social interaction. Users can comment on posts and reply to other comments, but unlike community-centric platforms such as Facebook, which offers group functions (Sanders, 2022) and is primarily used for personal connections (Keenan, 2022), Instagram offers far fewer opportunities for social interaction.

Hypothesis 2 proposed that that the influence of integration and social interaction on the social media engagement activities (a) consumption, (b) contribution, and (c) creation is greater for international **satellite** fans than **local** fans.

As there is no significant effect from the need of integration and social interaction on consumption for **local** fans, but a significant negative effect for international **satellite** fans, H2a was supported. This shows a clear difference between the two fan groups, which is also consistent with H2a, as only the international **satellite** fans are influenced by it. While **local** fans can draw their social interactions from their immediate environment and therefore do not rely on digital media, international **satellite** fans are reluctant to connect with other



fans via social media. However, it is rather surprising that international **satellite** fans are hesitant to use social media for interacting with other fans. It may be that these fans do not want to connect with other fans on social media because of the prejudice against them or that they simply enjoy their isolated fandom.

There is also no significant effect from integration and social interaction on the contribution and creation activity level of **local** fans, but a significant negative effect for international **satellite** fans. This again demonstrates that **local** fans interact socially with other fans independently of digital media and that international **satellite** fans tend to be more reserved in their social interaction on Instagram. However, since the hypothesis testing was based on the chi-square difference test and this test did not reveal statistically significant differences between the two fan groups for the paths from integration and social interaction to contribution ( $p = 0.248$ ) and creation ( $p = 0.117$ ), H2b and H2c were rejected. Since H2a was supported, but H2b and H2c were both rejected, hypothesis 2 was partially supported.

#### *6.2.1.3 Synthesis of Personal Identity and Consumers' Online Brand-Related Activities*

Hypothesis 3 examines the paths from personal identity to the consumption, contribution, and creation activity level. This hypothesis investigated whether the need to shape one's identity by providing an image of one's personality influenced the participants' online brand activities on NHL-related Instagram accounts, specifically focusing on consumption, contribution, and creation of content to these accounts. For both the **local** fan sample and the international

**satellite** fan sample, personal identity showed a statistically significant positive effect to every COBRA level, indicating that **local** and international **satellite** fans' need for personal identity does influence their online activities on NHL Instagram accounts.

These findings are in line with previous literature that also found an impact of personal identity on consumption, contribution, and creation (Muntinga, 2013, 2016; Saridakis et al., 2016). Saridakis et al. (2016) demonstrated this effect of personal identity especially among sports fans. However, the findings of this study contradict previous research that only observed an influence on contribution and creation activity level (Muntinga et al., 2011), merely on the creation activity level (Shao, 2009; Vale & Fernandes, 2018), or even identified no impact at all (Buzeta et al., 2020; Tsai & Men, 2013).

Hypothesis 3 suggested that there are no differences between the influence of personal identity on the social media engagement activities (a) consumption, (b) contribution, and (c) creation between **local** fans and international **satellite** fans.

Since there are no statistically significant differences between **local** and international **satellite** fans in this regard according to the chi-square difference test, H3a, H3b, and H3c were supported. Previous research has shown that geographic distance does not decrease the identification with a sports team (Menefee & Casper, 2011; Reifurth et al., 2019), which underlines that overseas fans can also be highly identified with their geographic distant team. This personal identification with a favourite team is essential for sports fandom (Funk & James, 2001; Hunt et al., 1999) and according to these results equally

important for the social media engagement of **local** and international **satellite** fans.

Although there are differences in identification between **local** fans, who are more likely to identify with the local area (Hunt et al., 1999; Jones, 1997; Watkins & Cox, 2020), and **satellite** fans, who use their personal identification to differentiate themselves from others (Andrijiw & Hyatt, 2009; Sveinson & Hoeber, 2016), this is an important motivation for both fan groups to engage in social media for recognition, self-expression, self-presentation, and self-assurance.

In general, this finding shows an important commonality between **local** and international **satellite** fans and underlines the importance of sports fans identifying strongly with their team. To the authors' knowledge, this is the first study that highlights personal identity as an equally important motivation for social media engagement across different sports fan types. By addressing fans' personal identity with their favourite team, sports organisations can successfully target both fan groups. In this way, interaction between **local** and international **satellite** fans may also be improved. To conclude, hypotheses 3 was supported.

#### *6.2.1.4 Synthesis of Information and Consumers' Online Brand-Related Activities*

Hypothesis 4 relates to the paths from information to consumption, contribution, and creation social media engagement level. This hypothesis evaluated whether the need for informational content influenced the participants' online brand activities on NHL-related Instagram accounts,

particularly focusing on consumption, contribution, and creation engagement activities. For the **local** fan sample, only the path from information to consumption is significant, but no influence from information on contribution or creation is detected, indicating that **local** fans' need for information only influences their consumption of NHL Instagram accounts.

This finding confirms the majority of studies (Buzeta et al., 2020; Muntinga et al., 2011; Saridakis et al., 2016; Shao, 2009; Vale & Fernandes, 2018; Yesiloglu et al., 2021), but contradicts research that identified information as a underlying motivation for consumption, contribution, and creation (Muntinga, 2013, 2016). It also challenges the study of Piehler et al. (2019) who found no impact of information on any COBRA level. In general, however, it is a very logical that the majority of studies have only found an influence of the need for information on consumption, as people only come to new information in a social media environment by consuming posts and comments of others.

Concerning the international **satellite** fan sample, significant effects are found for the paths from information to consumption and contribution, but no influence of information on creation. These results suggest that international **satellite** fans' need for information does influence their consumption and contribution of NHL content on Instagram, but not their creation of that content.

This is a substantial finding, since previous research have found either an effect of information on all COBRA levels (Muntinga, 2013, 2016), only on the consumption level (Buzeta et al., 2020; Muntinga et al., 2011; Saridakis et al., 2016; Shao, 2009; Vale & Fernandes, 2018; Yesiloglu et al., 2021), or no effect at all (Piehler et al., 2019). This adds to the literature on how specifically sports

fans who live at a geographical distance from their favourite team not only consume social media content to gather information, but also engage in contribution activities for this purpose. Previous research has only identified this behaviour in general, but not for a specific group of brand followers on social media (Muntinga, 2013, 2016). Extant studies with the specific follower group of sports fans have not yet demonstrated this effect of information on the contribution engagement (Saridakis et al., 2016; Vale & Fernandes, 2018).

Hypothesis 4 proposed that the influence of information on the social media engagement activities (a) consumption, (b) contribution, and (c) creation is greater for international **satellite** fans than **local** fans.

The sub-hypothesis H4a was rejected, because no statistically differences were found between **local** and international **satellite** fans. Both fan types are motivated by the need for information to consume team-related social media content. This demonstrates that while **satellite** fans are more dependent on social media than **local** fans (Kerr & Gladden, 2008; Li et al., 2017; Pu & James, 2017), **local** fans also heavily rely on digital media to consume information about their favourite team. This is also consistent with Li et al. (2017) who found that both Chinese and US NBA fans are interested in consuming team and player news, behind-the-scenes information and live game updates of their favourite team via social media. They found that information is a very important motivation for both fan groups to use social media. However, it needs to be underlined that this study only surveyed **local** and **satellite** fans who use Instagram, which excludes fans who do not use social media or other platforms. Therefore, the dependence of all **local** fans

on social media may actually be lower than demonstrated in this sample. Nevertheless, it is a surprising finding that there are no differences between the two fan groups, especially as Li et al. (2019) found that Chinese NBA fans are more motivated by their need for information to use social media than American NBA fans.

H4b was supported, since there are significant differences between **local** and international **satellite** fans. While there is no significant effect from information on the contribution engagement level among **local** fans, there is a positive effect among international **satellite** fans. This finding is a main contribution to the literature. As already discussed in this subchapter, this positive effect of information on contribution for **satellite** fans contradicts most literature (Buzeta et al., 2020; Muntinga, 2013, 2016; Muntinga et al., 2011; Piehler et al., 2019; Saridakis et al., 2016; Shao, 2009; Vale & Fernandes, 2018; Yesiloglu et al., 2021). However, it shows that international **satellite** fans use social media in a different way to gather information than **local** fans. Since information is additionally driving the contribution activity level of international **satellite** fans, it can be concluded that these fans also contribute in discussions with comments or even questions to clarify information and receive additional information from other fans or the sports organizations.

In contrast, **local** fans do not have to engage in this extended information gathering activities as they have more access to information about their favourite sports team than international **satellite** fans due to their geographic proximity (Kerr & Gladden, 2008; Li et al., 2017; Pu & James, 2017). This supports previous research that found Chinese NBA fans to be more motivated

by their need for information to engage in social media than US NBA fans (Li et al., 2019). One possible explanation for this behaviour of international **satellite** fans could be that they do not have enough access to information about their favourite team and are therefore willing to engage in contribution activities to gather additional information and stay informed.

H4c was rejected because there are no differences in the influence of information on the creation activity level of **local** and international **satellite** fans. A non-significant effect was identified for both samples. Although the hypothesis suggested a difference between the two fan groups, this result is not surprising, since the majority of COBRAs studies did not find a significant effect of information on creation (Buzeta et al., 2020; Muntinga et al., 2011; Piehler et al., 2019; Saridakis et al., 2016; Shao, 2009; Vale & Fernandes, 2018; Yesiloglu et al., 2021). Only Muntinga (2013) and Muntinga (2016) have so far identified an influence of information on creation.

These findings, however, contradict most research and its conclusion that the need for information only influences lowly-engaging brand-related activities and can thus be satisfied without actively engaging in creation behaviours (Buzeta et al., 2020; Saridakis et al., 2016; Vale & Fernandes, 2018). In general, it is understandable that information has no impact on creation activities, as users do not receive information when they create content themselves and post it on social media. In this way they share their knowledge to others. Only consumption of content and participation in online discussions can lead to social media users receiving information and news. Since the sub-

hypothesis H4b was supported, but H4a and H4c were both rejected, the main hypotheses 4 was partially supported.

#### *6.2.1.5 Synthesis of Remuneration and Consumers' Online Brand-Related Activities*

Hypothesis 5 investigates the paths from remuneration to consumption, contribution, and creation. This hypothesis examined whether the intention to receive a benefit or reward influenced the participants' online brand activities on NHL-related Instagram pages, focusing on consumption, contribution, and creation online activities. For the **local** fan sample, remuneration has a significant positive effect on contribution and creation, but a non-significant effect on consumption. This indicates that **local** fans' intention to receive a benefit or reward does influence their online behaviour in terms of contribution and creation, but not their consumption behaviour with NHL Instagram accounts.

These findings are extending the studies of Piehler et al. (2019) and Vale and Fernandes (2018) who also identified a significant effect from remuneration on contribution. Vale and Fernandes also conducted their study with sports fans, but did not distinguish between **local** and **satellite** fans. However, the findings are also challenging previous research that found an influence of remuneration on all COBRA levels (Buzeta et al., 2020), only on consumption (Muntinga et al., 2011), or only on creation (Muntinga, 2013, 2016; Yesiloglu et al., 2021).

For the international **satellite** fan sample, remuneration has a significant negative effect on consumption, while there is a significant positive effect on contribution and creation. These results indicate that international **satellite**



fans' intention to receive a benefit or reward negatively affects their consumption of NHL content on Instagram but increases their contribution and creation of that content.

This is partially in line with the findings of Buzeta et al. (2020) who found a significant positive effect on all engagement levels. Moreover, Buzeta et al. (2020) argue that previous studies indicate stronger effects when moving from low to high engagement levels (Muntinga, 2013; Piehler et al., 2019; Saridakis et al., 2016; Vale & Fernandes, 2018), but they found the strongest effect on consumption in their study. Therefore, the results of this study challenge the findings of Buzeta et al. (2020) and support the suggestion that remuneration has a stronger positive effect on highly engaging levels (international **satellite** fans consumption  $\beta = -0.140$ ; contribution  $\beta = 0.204$ ; creation  $\beta = 0.345$ ). Participation in raffles and contests on social media requires indeed the higher engaging activity levels of contribution (e.g. liking, sharing and commenting on a post of a brand) and creation (e.g. upload own content and link the brand to it), not just passive consumption. Furthermore, the international **satellite** fan findings contradict previous research that found an impact of remuneration only on contribution and creation (Piehler et al., 2019; Vale & Fernandes, 2018), only on consumption (Muntinga et al., 2011), or only on creation (Muntinga, 2013, 2016; Yesiloglu et al., 2021).

Hypothesis 5 suggested that the influence of remuneration on the social media engagement activities (a) consumption, (b) contribution, and (c) creation is greater for **local** fans than international **satellite** fans.

H5a was rejected, as the chi-square difference test showed no statistically significant differences ( $p = 0.214$ ) between the **local** and international **satellite** paths from remuneration on consumption. However, there appears to be differences between both fan groups on a descriptive level. While there is a non-significant effect for **local** fans, there is a significant negative effect for international **satellite** fans. This difference is an important new finding for the literature. Since German **satellite** fans are aware that they are not allowed to participate in official contests of their favourite NHL team (e.g. NHL, 2021a; Vancouver Canucks, 2022b), they might not even start searching for remuneration opportunities on social media. In contrast, **local** fans are not motivated at all by remuneration needs to consume content on Instagram. They enter these contests if they happen to see them, but do not actively search for them on social media.

H5b and H5c were both rejected because both fan types have a significant effect of remuneration on the contribution and creation engagement level. This is a surprising new finding, as international **satellite** fans have no opportunities to participate in official NHL raffles (e.g. NHL, 2021a; Vancouver Canucks, 2022b). However, this study surveyed fans that follow the official Instagram account of their team and/or other related accounts. Therefore, these German **satellite** fans could also participate in contests held by other hockey-related accounts, such as German hockey magazines (e.g. Dump & Chase or Eishockey News), to satisfy their need for remuneration. This demonstrates that the NHL and its teams should allow fans from other countries to participate in their official competitions on social media, as they have just as much interest

in these competitions as **local** fans. To conclude, the main hypothesis 5 was rejected, as H5a, H5b, and H5c were all rejected.

#### *6.2.1.6 Synthesis of Empowerment and Consumers' Online Brand-Related Activities*

Hypothesis 6 concentrates on the paths from empowerment on consumption, contribution, and creation. This hypothesis evaluated whether the need to empower oneself by influencing others affects the participants' online brand activities on NHL-related Instagram accounts, particularly focusing on consumption, contribution, and creation of content to these accounts. For the **local** fan sample, empowerment was a statistically significant influence for all three paths, indicating that **local** fans' need for empowerment does influence their online activities on NHL Instagram accounts.

This is consistent with Buzeta et al. (2020), who also found empowerment to have a significant positive impact on all three COBRA levels. However, these findings contradict studies that have failed to demonstrate an impact from empowerment on consumption (Muntinga, 2013, 2016; Muntinga et al., 2011; Saridakis et al., 2016; Vale & Fernandes, 2018) or found no impact at all (Tsai & Men, 2013; Yesiloglu et al., 2021). Thus, the finding that **local** NHL fans' need to empower themselves drives their consumption engagement has not been previously demonstrated in social media studies with sports fans (Saridakis et al., 2016; Vale & Fernandes, 2018) and is new to the literature.

For the international **satellite** fan sample the paths from empowerment on contribution and creation show a significant positive effect, but there is no significant effect on consumption. These findings indicate that international

**satellite** fans' need for empowerment does influence their contribution and creation of NHL content on Instagram, but not their consumption of this content.

These results are consistent with other sports fan studies that also found that empowerment only affects the contribution and creation engagement levels (Saridakis et al., 2016; Vale & Fernandes, 2018). However, they are challenging previous research that found an influence of empowerment on all three COBRA levels (Buzeta et al., 2020), only on the creation level (Muntinga, 2013, 2016; Muntinga et al., 2011), or did not find any influence (Tsai & Men, 2013; Yesiloglu et al., 2021).

Hypothesis 6 suggested that the influence of empowerment on the social media engagement activities (a) consumption, (b) contribution, and (c) creation is greater for **local** fans than international **satellite** fans.

The sub-hypothesis H6a was supported, as there is a significant effect for **local** fans from empowerment on consumption, but no significant effect for international **satellite** fans. This means that the need for empowerment drives the consumption activity level only for **local** fans. So, unlike international **satellite** fans, **local** fans actively seek out appropriate content on social media and their discussions in the comments section where they can influence other fans or their favourite team with their comments and opinions. This is a main contribution to the literature. One possible explanation is that **local** fans, some of whom would describe themselves as the better, more loyal, and the only true fans (Bridgewater, 2010; Hognestad, 2009), feel such a strong need to educate others that they even actively seek out appropriate content to do so.

However, it could be that the need for empowerment of **local** fans does not necessarily relate to other fans but only to their favourite sports team. Subchapter 6.2.1.2 already discussed that **local** fans do not engage in social media to interact with other fans. They may only be interested in giving their opinion to their team (e.g. whether a player should be traded or not) and therefore search for appropriate opportunities by consuming content.

H6b and H6c were both rejected as there are no differences in the influence of empowerment on contribution and creation between both **local** and international **satellite** fans. For both groups the paths show a significant positive effect. Furthermore, the effect on contribution (**local** fans  $\beta = 0.345$ ; international **satellite** fans  $\beta = 0.497$ ) was significantly stronger than the effect on creation (**local** fans  $\beta = 0.243$ ; international **satellite** fans  $\beta = 0.289$ ) in both samples. This is also in line with the literature which labelled empowerment as a main motivation for contribution (Vale & Fernandes, 2018) and secondary motivation for creation (Muntinga, 2016). This is comprehensible, as the effort for social media users to empower themselves by influencing others with their opinion through a comment is much lower than when they upload a self-created post with a photo or video.

However, it is a surprising finding that there are no differences between both fan groups in terms of the influence of empowerment on the contribution and creation engagement levels. On the one hand, this contradicts the assumption that international **satellite** fans may be more reserved about empowering others because they know that they are different to their **local** counterparts (Hognestad, 2006). This demonstrates that both fan groups are equally active

in influencing others on social media. On the other hand, this challenges the finding that the need for integration and social interaction has a negative impact on the engagement of international **satellite** fans in social media. It means that international **satellite** fans would engage in social media to influence others with their opinions, but use it less to have social interactions with other fans. In subchapter 6.2.1.2 it was already argued that Instagram is not a social media platform that facilitates social interaction. The findings thus indicate that the comment function is used, but no social interaction takes place on Instagram.

Nevertheless, it is also possible that international **satellite** fans do not want to influence other fans but only their favourite team. The same could also apply for **local** fans. Another possibility is that the anonymity of the internet could encourage these geographically distant **satellite** fans to post their opinions as comments and self-created content, but do not seek social integration into the *Global Sports Fan Nation* of their favourite team.

Moreover, Rookwood and Millward (2011) highlighted that there are already little differences between the perceptions and the overall understanding of the favourite sports team between committed **satellite** and **local** fans. They proposed that the constant connection of these groups via the internet could be the main driver for this unification. Consequently, international **satellite** fans may feel that their opinions contribute positively to social media discussions and are therefore confident to empower themselves. This confidence to influence other fans or the favourite team via social media can in turn undoubtedly be attributed to **local** fans, who are sometimes referred to

as better or the only true fans (Bridgewater, 2010; Hognestad, 2009). Finally, the main hypothesis 6 was partially supported because H6a was supported, but H6b and H6c both were rejected.

Before moving to the next subchapter, which discusses the hypotheses about the relationship between COBRAs and fan loyalty, one salient feature needs to be added to this discussion. By reviewing the six hypotheses investigating the relationship between U&G motivations and COBRAs, it is noticeable that the (a) consumption hypotheses were frequently supported, but the (b) contribution and (c) creation hypotheses significantly less. Only H3 proposes a commonality between the two fan groups, the other five hypotheses suggest differences. This means that the majority of statistically significant differences were found within the relationship between U&G motivations and the consumption engagement of **local** and international **satellite** fans, which is also an important new finding of this study. The only exception is H4b, which relates to the contribution engagement level. This could be because every social media user automatically consumes content but does not necessarily engage in higher activity levels (Muntinga et al., 2011). Perhaps those social media users who are more engaged, such as contributing and creating activities, are more similar in their motivations.

#### 6.2.2 Hypotheses about the Relationship Between Consumers' Online Brand-Related Activities on Fan Loyalty

In chapter 3.4.2 it was already underlined that there is limited research on the relationship between social media and loyalty (Lee et al., 2018), particularly between the COBRAs framework and brand or fan loyalty. While some studies

combine different social media engagement levels to one construct (Jayasingh, 2019; Mishra, 2021), other studies have divided social media engagement into different stages, which is similar to the COBRAs framework and examined them in connection with loyalty (Fernandes & Castro, 2020; Núñez-Gómez et al., 2020; Van Asperen et al., 2018; Yoshida et al., 2018). Furthermore, some of these studies distinguish between attitudinal and behavioural loyalty (e.g. Van Asperen et al., 2018; Yoshida et al., 2018; Zheng et al., 2015) and others examine loyalty as a general construct (Fernandes & Castro, 2020; Núñez-Gómez et al., 2020). In this study, however, attitudinal and behavioural loyalty were examined separately.

In previous research, contradictory results were found in some cases, which could be due to different social media channels studied, but also to different samples. Most studies focused on Facebook (Fernandes & Castro, 2020; Van Asperen et al., 2018; Zheng et al., 2015), but also YouTube (Núñez-Gómez et al., 2020) and a combination of several social media platforms such as Facebook and Twitter (Yoshida et al., 2018) were investigated. In addition, the studies concentrated on different social media user groups such as children (Núñez-Gómez et al., 2020), football and baseball fans (Yoshida et al., 2018), customers of travel agencies (Van Asperen et al., 2018), or a combination of different brand followers (Chen, 2011; Fernandes & Castro, 2020). Two studies also limited their sample to geographic areas such as Hong Kong (Zheng et al., 2015) or Spain (Núñez-Gómez et al., 2020), which could be also a reason for different results between studies due to cultural differences (Kitirattarkarn et al., 2020). The following subchapters compare the results of



these studies with sports fan literature and the results of the present study, which focuses on local NHL fans and German satellite fans on Instagram.

#### *6.2.2.1 Synthesis of Consumption Activity Level and Fan Loyalty*

Hypothesis 7 examines the paths from the consumption activity to attitudinal and behavioural loyalty. Specifically, this hypothesis examined whether the viewing or reading of NHL-related Instagram content influences the participants' loyalty towards their favourite NHL team. For the **local** fan sample the path to attitudinal loyalty is significant, indicating that consuming NHL-related Instagram content influences their emotional attachment to their favourite team.

This extends the findings of Van Asperen et al. (2018), who identified an influence of consumption on attitudinal loyalty of Facebook followers of a travel agency. It adds to the literature that this also applies for **local** NHL fans who use Instagram. Furthermore it supports Chen (2011) who demonstrated that social media can develop a feeling of connection. This feeling could be represented by attitudinal loyalty, as sports fans feel an inner attachment to their favourite team (Bauer et al., 2005; Bauer et al., 2008).

However, the path from consumption to behavioural loyalty is not significant for **local** fans, suggesting that viewing or reading NHL-related Instagram content does not influence word-of-mouth or purchase behaviour towards their favourite team. The author is unaware of previous research that investigated that specific relationship. Nevertheless, this finding contradicts Fernandes and Castro (2020) who found that a passive social media engagement on Facebook effects brand loyalty. It should be noted that Fernandes and

Castro's (2020) study included the liking of content as a passive social media engagement, which actually is not included in the consumption activity level of the COBRAs framework. Furthermore, in that study brand loyalty was not divided into attitudinal and behavioural loyalty, and the sample consisted not only of sports fans but brand followers on Facebook in general. Because of these differences, the results of this study can only be compared with those of Fernandes and Castro (2020) with caution. The result of this study is thus new in the literature. This new **local** fan finding, however, supports the assumption of Hawkins and Vel (2013) that social media may influence customers' attitudinal loyalty rather than behavioural loyalty.

For the international **satellite** fan sample the paths from consumption to attitudinal and behavioural loyalty are both significant. These results indicate that international **satellite** fans' consumption of NHL-related Instagram content influences their emotional attachment as well as word-of-mouth and purchase behaviour towards their favourite team.

This again is in line with previous research that confirmed an influence from consumption on attitudinal loyalty (Van Asperen et al., 2018) and brand loyalty in general (Fernandes & Castro, 2020). Moreover, it also demonstrates that social media can create a sense of connectedness (Chen, 2011), such as attitudinal loyalty (Bauer et al., 2005; Bauer et al., 2008), despite large geographical distances. Surprisingly, however, consumption has a significant impact on the behavioural loyalty of international **satellite** fans, but not on that of **local** fans, who have many more consumption options with their favourite team. This is an important new contribution to the literature. The finding is

therefore discussed in more detail in the comparison of the two fan types later in this subchapter.

Hypothesis 7 proposed that the influence of consumption social media engagement activities (a) on attitudinal loyalty is greater for international **satellite** fans than **local** fans and (b) on behavioural loyalty is greater for **local** fans than international **satellite** fans.

The sub-hypothesis H7a was supported, as there is a statistically significant difference between both fan groups. Although the influence from consumption on attitudinal loyalty is significant for both groups, there is a stronger effect for international **satellite** fans ( $\beta = 0.475$ ) than for **local** fans ( $\beta = 0.381$ ), which is a major new finding. This stronger influence for international **satellite** fans may be due to the fact that, unlike **local** fans, they are limited in their connection points to their favourite team and often only have access to it through digital media (Ben-Porat, 2000; Li et al., 2017; Pu & James, 2017). Consequently, social media was rightfully labelled as an important socialization agent for **satellite** fans (Phua, 2010; Pu & James, 2017). Even if the effect of social media consumption on attitudinal loyalty is weaker for **local** fans, the significant effect still highlights the importance for **local** fans. For **local** fans using Instagram, it is also a channel to maintain and increase their attitudinal loyalty.

H7b was rejected as contrary to the proposed sub-hypothesis the influence from consumption on behavioural loyalty is stronger for international **satellite** fans. There is no significant effect among **local** fans. This is a new and also surprising finding given that international **satellite** fans are limited in their

overall consumption options for their favourite team, such as reduced access to fan merchandise or kick-off times in the middle of the night (Ben-Porat, 2000; Pu & James, 2017). However, because **local** fans have a variety of connection points to their favourite team, such as the stadium, fan merchandise stores, or other **local** fans, these connection points could influence their behaviour in lieu of social media consumption. Nevertheless, for international **satellite** fans it is their social media consumption that influences their fan behaviour, which in turn highlights again the social media dependency of this fan group (Ben-Porat, 2000; Li et al., 2017; Pu & James, 2017). This shows that the consumption activity level not only can increase attitudinal loyalty, but can also lead to offline brand-related behavioural loyalty, such as wearing the logo of the favourite team. To conclude, the main hypothesis 7 was partially supported, as H7a was supported, but H7b was rejected.

#### *6.2.2.2 Synthesis of Contribution Activity Level and Fan Loyalty*

Hypothesis 8 investigates the paths from the contribution activity level to attitudinal and behavioural loyalty. In particular, this hypothesis examined whether liking, sharing, or commenting on NHL-related Instagram content influences the participants' loyalty towards their favourite NHL team. For the **local** fan sample, the path to attitudinal loyalty is not significant, suggesting that contributing to NHL-related Instagram content does not influence their emotional attachment to their favourite team.

This finding is in line with Van Asperen et al. (2018) who also found no significant relationship between active social media engagement levels and

attitudinal loyalty. However, in their study, active engagement on social media included posting brand-related content, and their study focused on Facebook and travel agency brands. Furthermore, the finding of this **local** fan sample contradicts Zheng et al. (2015) who found that active social media engagement in Facebook with brands leads to attitudinal loyalty.

In contrast, the path from contribution to behavioural loyalty shows a significant positive effect among **local** fans. This result indicates that **local** fans liking, sharing, or commenting on NHL-related Instagram content leads to positive word-of-mouth and purchase behaviour towards their favourite team.

This finding supports previous research that found a positive relationship between active social media engagement on Facebook and behavioural loyalty of sports fans (Yoshida et al., 2018). The study by Yoshida et al. (2018), however, considered posting of brand-related content, which belong to the creation activity level according to the COBRAs framework, at the same engagement level as contribution activities. Thus, there may be intersections with the creation activity level and their finding. The finding of this study therefore represents an important extension as, to the author's knowledge, it is the first study to explicitly demonstrate the influence of the contribution engagement level on behavioural loyalty for **local** fans.

For the international **satellite** fan sample the paths from contribution to attitudinal and behavioural loyalty both show a significant positive effect. This indicates that liking, sharing, or commenting on NHL-related Instagram content influences international **satellite** fans' emotional attachment as well as word-of-mouth and purchase behaviour towards their favourite team. While

this is in line with previous studies that found a positive impact on attitudinal (Zheng et al., 2015) and behavioural loyalty (Yoshida et al., 2018), it contradicts Van Asperen et al. (2018) who found no impact of active social media engagement activities on attitudinal loyalty. To the author's knowledge, this is the first study to find an impact of the contribution engagement on both attitudinal and behavioural loyalty of a specific group of social media users.

Hypothesis 8 stated that the influence of contribution social media engagement activities (a) on attitudinal loyalty is greater for international **satellite** fans than **local** fans and (b) on behavioural loyalty is greater for **local** fans than international **satellite** fans.

The sub-hypothesis H8a is rejected, as the chi-square difference test signaled no statistically significant differences between both fan groups ( $p = 0.121$ ). However, the paths from contribution to attitudinal loyalty showed a non-significant effect for **local** fans and a significant effect for international **satellite** fans. Even though the sub-hypothesis must be rejected based on the chi-square difference test, it shows on a descriptive level that there is a difference between these fan groups. Since only the effect of contribution on attitudinal loyalty is significant for international **satellite** fans, the dependence of these fans on digital media is underscored again (Ben-Porat, 2000; Li et al., 2017; Pu & James, 2017).

H8b is also rejected because the effect from the contribution engagement level on behavioural loyalty is similar for both fan groups and not as suggested greater for **local** fans. This demonstrates that engagement of both fan groups, **local** and international **satellite** fans, through liking and commenting on social

media increases their behavioural loyalty. This is another significant and surprising finding because, unlike **local** fans, international **satellite** fans are limited in their overall consumption options for their favourite team (Ben-Porat, 2000; Pu & James, 2017). It demonstrates that **local** fans, who are not as reliant on social media for their fandom as international **satellite** fans (Ben-Porat, 2000; Li et al., 2017; Pu & James, 2017), can still be heavily influenced by these media. Since this study only examined fans who use Instagram, the influence of social media may be less for **local** fans in general. However, the influence on behavioural loyalty is just as strong for **local** fans who use social media as it is for fans who are geographically distant. Since contribution on social media is an active form of engagement, it stands to reason that this active engagement in a digital space can increase a positive behaviour towards the favourite team in the offline world for both fan groups. Because the sub-hypotheses H8a and H8b both were rejected, the main hypothesis 8 was rejected.

#### *6.2.2.3 Synthesis of Creation Activity Level and Fan Loyalty*

Hypothesis 9 relates to the paths from the creation activity level to attitudinal and behavioural loyalty. Specifically, this hypothesis examined whether creating and posting NHL-related content on Instagram influences the participants' loyalty towards their favourite NHL team. For the **local** fan sample there is a non-significant effect on attitudinal loyalty, indicating that creation engagement activities do not influence their emotional attachment to their favourite team.

This finding challenges the results of Fernandes and Castro (2020) and Núñez-Gómez et al. (2020), who found an influence from social media creation and posting activities on brand loyalty in general. Both studies did not differentiate between attitudinal and behavioural loyalty. Therefore, this study is the first to investigate the relationship between creation engagement and attitudinal loyalty, but found no impact.

However, there is a significant positive effect of the paths from creation to behavioural loyalty for **local** fans, suggesting that creating and posting NHL-related content on Instagram influences their word-of-mouth and purchase behaviour towards their favourite team. This again supports the findings of Fernandes and Castro (2020) and Núñez-Gómez et al. (2020). As they did not differentiate between the two loyalty dimensions, this is also the first study to find an influence from creation engagement on behavioural loyalty.

For the international **satellite** fan sample, there is a significant positive effect for both paths from creation to attitudinal and behavioural loyalty. This means that creating and posting NHL-related content on Instagram positively influences international **satellite** fans' emotional attachment as well as word-of-mouth and purchase behaviour towards their favourite team. As social media creation activities are the most active way to support their favourite team from a distance, both attitudinal and behavioural loyalty is influenced by it. This finding supports the results of Fernandes and Castro (2020) and Núñez-Gómez et al. (2020), who identified an effect from creation engagement on brand loyalty, which consists of attitudinal and behavioural loyalty (Bauer et al., 2005; Bauer et al., 2008). Because of the limited amount of studies that



investigate the relationship between social media engagement levels and loyalty, the author is unaware of studies that contradict this finding.

Hypothesis 9 suggested that the influence of creation social media engagement activities is greater for **local** fans than international **satellite** fans on (a) attitudinal loyalty and (b) behavioural loyalty.

H9a was rejected as there is a statistically significant difference in the influence of creation on attitudinal loyalty between **local** and international **satellite** fans, but contrary to the assumption, the influence is stronger for international **satellite** fans. It has been suggested that **local** fans have a better foundation for engaging in creation activities because they are fluent in English, have no time difference, and thus have an advantage when it comes to getting the latest news or watching games, are able to attend home games, and also being allowed to participate in official social media competitions of their favourite team (e.g. NHL, 2021a; Vancouver Canucks, 2022b). In addition, it has been suggested that **satellite** fans may be more reserved in their social media creation activities because they are aware that they are different to **local** fans (Hognestad, 2006) and therefore do not want to post anything inappropriate to avoid being ridiculed.

However, it turns out that creation has no significant effect on attitudinal loyalty of **local** fans, but it does on international **satellite** fans. This is another major contribution and demonstrates again that international **satellite** fans are dependent on social media (Ben-Porat, 2000; Li et al., 2017; Pu & James, 2017). Since social media is usually their only connection to their favourite team, creating and posting online content reinforces their inner attitude

towards their favourite team. In contrast, **local** fans might increase their attitudinal loyalty by attending games or socializing with other fans (Wann, 2006b; Wann et al., 2008), so social media has no impact here. As visiting the stadium is labelled as a ritual for **local** fans (Weng, 2022), this offline experience may have a significantly stronger meaning for their attitudinal loyalty than creation activities in social media.

Sub-hypothesis H9b was also rejected as the creation activity level has a positive influence on behavioural loyalty for both fan groups. As described above, **satellite** fans were assumed to have poorer conditions to create and post content about their favourite team and also to be more hesitant to post this content. Therefore, it was assumed that the creation engagement level has a stronger influence for **local** fans. However, the creation activity level was found to have a similar positive effect on the behavioural loyalty of **local** and international **satellite** fans. This shows that sports fans who are most engaged on social media and post content about their favourite team also exhibit very positive behaviour toward their team outside of social media, regardless of their geographic proximity. This is supporting previous research demonstrating that geographical distance does not diminish fandom (Menefee & Casper, 2011; Reifurth et al., 2019). Furthermore, it supports the suggestion from subchapter 6.2.2.2 that active social media engagement can increase an offline behaviour towards the favourite sports team for both fan groups. To conclude, hypothesis 9 was rejected, as both sub-hypotheses H9a and H9b were not supported.

By reviewing the three hypotheses that investigate the relationship between COBRAs and fan loyalty, it strikes that only one sub-hypothesis was supported. It is also striking that – as with the first six hypotheses – the most differences between the two fan groups exist at the consumption engagement level. There are significant differences in the influence of the consumption activity on both attitudinal and behavioural loyalty between **local** and international **satellite** fans. This again supports the assumption that highly engaged social media users are more similar and users who only consume content are more different from each other.

### 6.3 Key Findings of the Study

The study's data analysis validated the conceptual model and showed through the differences between the two samples that geographic distance moderates the relationships between social media engagement motives and COBRAs, and COBRAs and fan loyalty. In this context, the U&G theory was confirmed and also extended by incorporating geographical distance as a moderator.

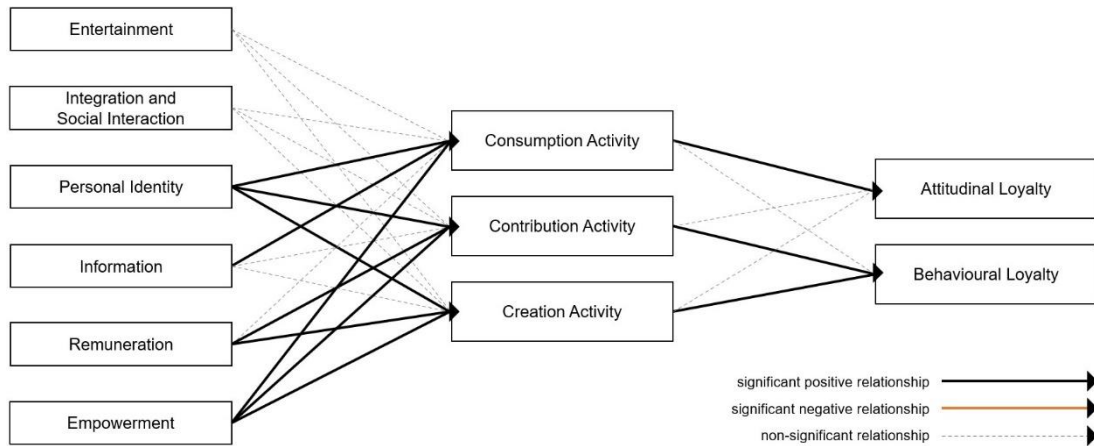
In the previous subchapters, the hypotheses have been discussed in context with the literature on this research. In particular, through the limited number of existing research, the results of this study are a valuable contribution to the literature. The key findings of the local fans, international satellite fans, and the comparison of the two fan groups are summarised in the following subchapters.

#### 6.3.1 Key Findings of Local Fans

For the local fan, of the 24 paths tested in the conceptual model, 12 paths were significant. The standardized coefficients and p-values of the individual

model paths were already summarised in Table 17 in subchapter 5.6.2. To provide a visual basis for the discussion of the key findings of the local fans, these significant and non-significant paths have been presented graphically in the following figure.

*Figure 17: Local Fan Sample: Significant and Non-Significant Paths of the Conceptual Model*



The analysis showed that personal identity and empowerment are driving all COBRA levels for local fans. This stresses the importance of sports fans identifying with their favourite team (Funk & James, 2001; Hunt et al., 1999) and shows that local fans use social media as a channel to empower themselves by engaging in a variety of activities. Furthermore, both personal identity and empowerment are mainly driving the contribution engagement level. This means that highly identified local fans are particularly engaged in social media activities such as sharing posts and commenting, and especially want to empower themselves through this commenting activity.

The motivation remuneration is mainly driving the creation engagement level, but is also impacting contribution. There is no effect from remuneration on consumption. Consequently, local fans participate in social media contests of their favourite team (e.g. NHL, 2021a; Vancouver Canucks, 2022b) by creating

and uploading their own posts, but also by commenting or sharing them. In addition, the need for information is only driving the consumption level for local fans. Hence, the use of social media is relevant for local fans to get the latest news and updates, even if they are geographically close to their favourite team.

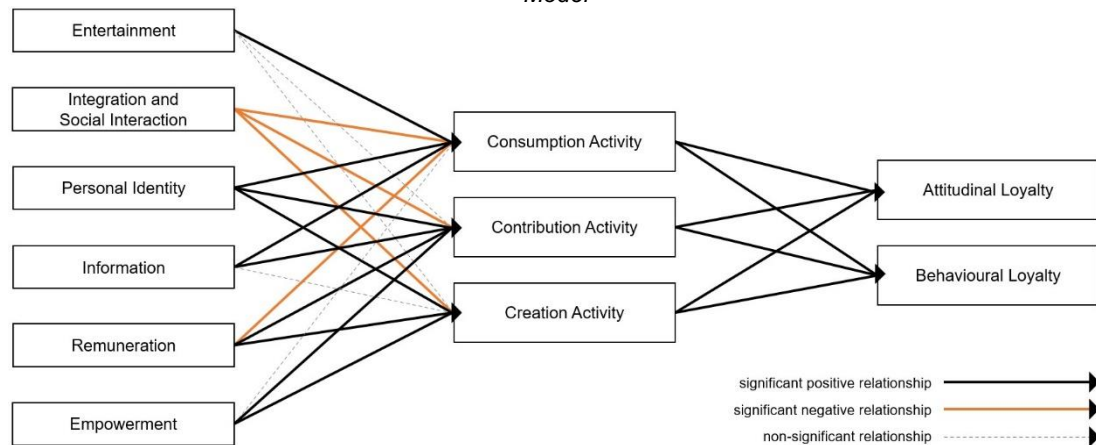
In contrast, the needs for entertainment and integration and social interaction are both not driving any COBRA level of local fans. As local fans reside in geographic proximity to their favourite team, they have closer access to the stadium (Weng, 2022) and are surrounded by numerous other local fans of their team (Wann, 2006b; Wann & Martin, 2011; Wann et al., 2008). It seems therefore, that they satisfy their needs for entertainment as well as integration and social interaction in the offline world.

In terms of the relationship between COBRA levels and fan loyalty, social media engagement was shown to drive the attitudinal and behavioural loyalty of local fans. The consumption activity level only influences attitudinal loyalty. Behavioural loyalty, in contrast is mainly driven by creation, but also by contribution. The consumption activity level has no impact on behavioural loyalty for local fans. Thus, COBRAs have loyalty consequences for local fans. While passive consumption of brand-related content is sufficient to strengthen a local fan's inner connection to their favourite team, active social media engagement activities are needed to influence the fan's actions. This demonstrates that local fans who show particularly strong engagement activities in the online world also do so in the offline world.

### 6.3.2 Key Findings of International Satellite Fans

For the international satellite fan, of the 24 paths tested in the conceptual model, 20 paths are significant. The standardized coefficients and p-values of the individual model paths were already summarised in Table 17 in subchapter 5.6.2. To provide a visual basis for the discussion of the key findings of the international satellite fans, these significant and non-significant paths have been presented graphically in the following figure.

Figure 18: International Satellite Fan Sample: Significant and Non-Significant Paths of the Conceptual Model



The statistical analysis demonstrated that all COBRA levels are driven by the need for personal identity, remuneration as well as integration and social interaction. While personal identity is the main driver for creation and has exclusively a positive effect, remuneration is also the main driver for creation but has a negative effect on consumption, and integration and social interaction has a negative effect on all engagement levels.

These findings highlight several points. Firstly, the importance of sports fans identifying with their favourite team (Funk & James, 2001; Hunt et al., 1999) is also underlined by the results from the international satellite fans. As geographic distance to a sports team does not decrease the identification to it

(Menefee & Casper, 2011; Reifurth et al., 2019), especially this identification is driving international satellite fans to engage on social media. Secondly, it becomes clear that international satellite fans are interested in social media contests, even if they are not allowed to participate in the official competitions of their favourite NHL team (e.g. NHL, 2021a; Vancouver Canucks, 2022b). The negative influence of remuneration on consumption could be a sign that they are aware that they are being denied participation. However, they still have the option to participate in contests held by other hockey-related accounts, such as hockey magazines (e.g. Dump & Chase or Eishockey News). Finally, international satellite fans are reluctant to use social media to integrate in the *Global Sports Fan Nation* of their team and interact with other fans. This could be due to some local fans' perceived prejudices against satellite fans (Bridgewater, 2010; Hognestad, 2009), because they know they are a different type of fan (Hognestad, 2006) or because they simply enjoy their isolated fandom as it gives them a sense of uniqueness (Andrijiv & Hyatt, 2009; Sveinson & Hoeber, 2016). Yet this reluctance could also be due to the investigated platform of Instagram, which is not as community-centric as other social media platforms (Doyle et al., 2022; Keenan, 2022; Sanders, 2022).

The remaining U&G motivations have no influence on all three engagement levels among international satellite fans at once. Need for information is mainly driving the consumption activity level, but also the contribution level for international satellite fans. It has no effect on creation. This could be an indication that international satellite fans do not have enough access to information about their favourite team. Therefore, they might also partially

engage in contribution activities, for example to clarify questions or get more background information.

Furthermore, the motivation empowerment is mainly driving the contribution engagement level, but also the creation level. This is an interesting finding as international satellite fans seem reluctant to interact with other fans on social media but use it to empower themselves by influencing others with their opinion. It is possible that they do not want to influence other fans but only their favourite team by their comments and posted content. In contrast, the need for entertainment is only driving consumption and thus has no impact on the contribution and creation engagement level. As digital media is the only connection between international satellite fans and their geographically distant favourite team (Kerr & Gladden, 2008; Li et al., 2017; Pu & James, 2017), they consume social media content to satisfy their entertainment needs.

Concerning the impact of COBRA levels on fan loyalty of international satellite fans, a high degree of media influence was demonstrated. The social media engagement levels of consumption, contribution, and creation are all positively driving attitudinal and behavioural loyalty. Thus, COBRAs have also loyalty consequences for international satellite fans, except that for this fan type each COBRA level affects both loyalty dimensions. This leads to the new finding that international satellite fans' loyalty is influenced by Instagram and therefore also confirms that this fan group is highly dependent on digital media (Kerr & Gladden, 2008; Pu & James, 2017). However, while attitudinal loyalty is mainly affected by consumption, behavioural loyalty receives the strongest impact from creation. This again shows that especially passive consumption of brand-



related content strengthens the inner connection of sports fans to their favourite team, while highly active social media engagement is particularly influencing the fan's behaviour.

### 6.3.3 Key Findings of Comparison of Both Sports Fan Groups

In subchapter 5.6.2, the comparison between **local** and international **satellite** fans was carried out between the two samples using chi-square difference test. This test identified a total of seven paths in the conceptual model that statistically differ between the two fan types. These paths and their differences between **local** and international **satellite** fans are summarised in the following table.

*Table 19: Differences between Local and International Satellite Fans According to Chi-Square Difference Test*

Path relationship	Difference
Ent → Consump	The need for entertainment has a positive effect on social media consumption of international <b>satellite</b> fans, but not <b>local</b> fans.
Inte_Soc → Consump	The need for integration and social interaction has a negative effect on social media consumption of international <b>satellite</b> fans, but not <b>local</b> fans.
Info → Contrib	The need for information has a positive effect on social media contribution of international <b>satellite</b> fans, but not <b>local</b> fans.
Emp → Consump	The need for empowerment has a positive effect on social media consumption of <b>local</b> fans, but not international <b>satellite</b> fans.
Consump → Attitud	Social media consumption has a stronger effect on attitudinal loyalty of international <b>satellite</b> fans than on that of <b>local</b> fans.
Consump → Behav	Social media consumption has a positive effect on behavioural loyalty of international <b>satellite</b> fans, but not <b>local</b> fans.
Create → Attitud	Social media creation activities has a positive effect on attitudinal loyalty of international <b>satellite</b> fans, but not <b>local</b> fans.

The table shows that there are statistically significant differences between both fan types in the relationship from entertainment, integration and social interaction, and empowerment on the consumption activity level as well as from information on the contribution activity level. The differences in the influence of entertainment and information indicate that international **satellite** fans, in contrast to the **local** fans, are heavily dependent on digital media (Kerr

& Gladden, 2008; Li et al., 2017; Pu & James, 2017). Furthermore, the different impact of integration and social interaction as well as empowerment underlines key differences between the two fan types. While international **satellite** fans seem reluctant to be integrated in the *Global Sports Fan Nation* of their team via Instagram, **local** fans do not consume Instagram content to seek out opportunities for social interaction as they can do so in the offline world. However, **local** fans consume social media content to find opportunities to influence their favourite team, but international **satellite** fans do not.

The table also outlines that there are statistically significant differences between both fan groups in the relationship from the consumption activity level on attitudinal and behavioural loyalty as well as from the creation activity level on behavioural loyalty. In all cases, loyalty is influenced more strongly or only for international **satellite** fans. This again proves that the fandom of **satellite** fans is based on digital media (Kerr & Gladden, 2008; Li et al., 2017; Pu & James, 2017) and consequently can be more influenced by it than **local** fans.

Moreover, by comparing the significant and non-significant paths of **local** and international **satellite** fans on a descriptive level, even more differences stand out that were not revealed by the chi-square difference test. While the need for integration and social interaction does not motivate **local** fans to engage in social media at contribution and creation activity levels, this is a significant motivation for these engagement levels of international **satellite** fans. However, integration and social interaction has a negative impact, which indicates their reluctance to interact with other fans via Instagram. In addition, remuneration has no effect on the social media consumption of **local** fans but

has a small negative effect on the consumption of international **satellite** fans. This may show the reluctance of international **satellite** fans to even search for contests via social media consumption, as they are not allowed to participate (e.g. NHL, 2021a; Vancouver Canucks, 2022b). Another difference is that the contribution activity level does not affect attitudinal loyalty of **local** fans, but does this for international **satellite** fans.

Nevertheless, there are also some similarities. The most important one lies in the influence of personal identity, as it drives all COBRA levels of both fan groups. Although the chi-square difference test did not reveal any differences here, on a descriptive level, a stronger influence of personal identity is evident among international **satellite** fans than among **local** fans. While this underlines that both fan groups are driven to use social media by identification with their favourite team, this is less pronounced among **local** fans as they have more connection points to their favourite team due to their geographical proximity.

Additionally, the need for information is driving the consumption level for **local** and international **satellite** fans. This demonstrates that social media is also for **local** fans an important tool to gather the latest news and updates about their team. Furthermore, remuneration and empowerment do both drive the contribution and creation activity levels of **local** and international **satellite** fans, which highlights that both groups participate in social media contests (satellite fans can only participate in competitions that are not organised by the NHL, e.g. a hockey magazine). Another commonality is that the social media engagement levels of contribution and creation both drive the behavioural

loyalty of **local** and international **satellite** fans. Thus, there are behavioural consequences for both fan groups through active social media engagement.

This comparison indicates that **local** fans have a smaller set of motivations to engage in social media activities, which could be because they can satisfy their needs in the offline world, such as at the stadium or with other fans (Wann & Martin, 2011; Wann et al., 2008). In contrast, all proposed motivations are important to international **satellite** fans, which may underscore that they have fewer consumption options beside digital media and consequently rely heavily on social media (Ben-Porat, 2000; Li et al., 2017; Pu & James, 2017).

The comparison of the influence of COBRAs on fan loyalty between both fan groups demonstrates that social media engagement has more and mostly stronger influence on the fan loyalty of international **satellite** fans. Only the effect of contribution on behavioural loyalty was stronger for **local** fans than for international **satellite** fans. The other effects from social media engagement on fan loyalty were stronger for international **satellite** fans. This again underlines that the fandom of **satellite** fans is based on digital media (Ben-Porat, 2000; Li et al., 2017; Pu & James, 2017).

To conclude, there are a several critical differences between both fan groups. Therefore, it can be stated that **local** and international **satellite** fans are two distinctly different sports fan groups in terms of their motivations for social media engagement and its influence on their fan loyalty. Both fan groups are motivated to engage with their favourite team on social media and this also influences their fan loyalty. But overall, the dependence of the international **satellite** fan on social media is significantly higher than for the **local** fan.

## 6.4 Chapter Summary

In this chapter the empirical findings as well as significant and non-significant hypotheses of this study were discussed and compared to the results of previous research. Of the total 24 sub-hypotheses, eight were supported and 16 were rejected, resulting in one supported, five partially supported and three rejected main hypotheses. Geographic distance was found to moderate the influence of sports fans' motivations for social media use on several COBRAs, as well as the influence of COBRAs on their fan loyalty.

The comparison of both fan groups showed that local fans have a smaller set of motivations for social media engagement than international satellite fans. In addition, social media engagement has a lower impact on the loyalty of these local fans. It was therefore assumed that international satellite fans are more reliant on digital media than local fans due to their geographical distance to their favourite team. They have a broader set of motivations to use social media and their fan loyalty is more and stronger influenced by their social media engagement. Consequently, local and international satellite fans are two distinctly different sports fan groups.

# 7 Conclusion

## 7.1 Chapter Overview

The final chapter of this thesis summarises the findings in relation to the research questions. For this purpose, the research objectives and questions are reviewed and discussed in detail.

Furthermore, the contributions to knowledge of this study are outlined. This is followed by the presentation and discussion of the practical implications derived from the study findings. The chapter ends by outlining its limitations and opportunities for future research in the emerging and increasingly growing area of satellite fans.

## 7.2 Review of Research Objectives and Questions

### 7.2.1 Review of Research Objectives

The aim of this study was to explore the extent to which local and satellite fans differ in the motivations for social media engagement and the influence of social media engagement on their fan loyalty. In subchapter 1.3, a total of five research objectives were listed to fulfil the research aim and answer the two research questions of this study. These research objectives are listed and reviewed below.

**RO1:** *Conduct a systematic literature review on the satellite fan segment to identify its current state of research.*

In chapter 2, a six-step systematic literature review according to Palmatier et al. (2018) was conducted on the satellite fan segment. In doing so, the current

state of research on the satellite fan segment was summarised in thematic research categories and descriptive results (e.g. investigated sports or countries of origin of the satellite fans studied). Above all, the literature review has shown that different terms for satellite fan are used interchangeably and thus there is no established and uniform definitional basis. In order to use consistent definitions for the populations examined in this study, the *Global Sports Fan Nation* framework was developed based on existing literature. Besides a common taxonomy for local fans and the satellite fan segment, the framework also demonstrates that satellite fans can exist on a national and international level. The latter are compared with local fans in this research.

**RO2:** *Critically review the extant literature concerning motivations for social media engagement, social media engagement, and fan loyalty as a basis for creating a conceptual model.*

In chapter 3, the extant literature on social media engagement and fan loyalty was reviewed. In this process, it became apparent that the U&G theory by Katz et al. (1974) is very suitable for this study. This was also confirmed after conducting the study, as U&G theory investigates media use from the perspective of the users, who in this research are the local and international satellite fans. The six-folded U&G motivation set for social media engagement consisting of entertainment, integration and social interaction, personal identity, information, remuneration, and empowerment were applied in this study. The literature outlined that these U&G motivations have an influence on the COBRA levels of consumption, contribution, and creation. The review also showed that social media engagement has an impact on loyalty of consumers.

In sports fan research, this fan loyalty is composed of an attitudinal and behavioural dimension. Based on these findings a conceptual model was established. In addition, to compare local and international satellite fans, geographical distance was included as a moderator in the conceptual model.

**RO3:** *Develop an appropriate methodology for collecting and analysing data and test the conceptual model to answer the research questions.*

In chapter 4, a quantitative research methodology was developed. Data collection was conducted via an online questionnaire and snowball sampling technique on social networks. In chapter 5, demographic data was used to demonstrate that the two samples of local and international satellite fans are representative. The reliability of the constructs was confirmed by several statistical tests. In addition, the conceptual model was tested and confirmed by CFA and SEM. Furthermore, differences and similarities between local and international satellite fans were identified using the chi-square difference test. The results of these statistical analyses were used to answer the research questions. In general, it was found that international satellite fans' social media engagement is driven by more motivations and has a greater impact on their fan loyalty than that of local fans.

**RO4:** *Discuss the results in the context of the existing literature and compare the results of local and international satellite fans.*

In chapter 6, the results of this quantitative study were discussed and placed in context of the existing literature. In this process, the hypotheses that emerged from the research questions and the conceptual model of this study were discussed individually. In addition, the findings of the local and



international satellite fans were compared, which highlighted differences and similarities between the two fan groups.

**RO5:** *Certify that this study has achieved its research aim and identify the contributions, limitations and areas for future research.*

Within this chapter 7, the research objectives and both research questions are reviewed. As these objectives and questions emerged from the research aim, it is demonstrated that this study has achieved its overall aim. Furthermore, the contributions of this study to knowledge and practice, its limitations, and future research areas are identified and discussed.

The achievement of these five research objectives has supported the answering of the two research questions and has thus led to the fulfilment of the research aim of this study. The two research questions are reviewed in the following two subchapters.

### 7.2.2 Review of the First Research Question

This thesis was guided by two research questions which were introduced in subchapter 1.3. The first research question is:

**RQ1:** *How are the motivations for social media engagement with their favourite team different between international satellite fans and local fans?*

To answer the first research question, the six-folded U&G motivation set was related to the social media engagement levels of consumption, contribution, and creation. In order to distinguish between local and international satellite fans, geographical distance was included as a moderator in the conceptual model. The research question was mainly answered by the results of the chi-

square difference test, which statistically compared the paths of the conceptual model between both fan groups. Overall, four statistically significant differences were identified in this regard. All of these differences are summarised and explained in the following sections.

The first statistically significant difference is that the need for entertainment is driving the consumption engagement with brand-related content of international satellite fans, but not local fans. Extant research has so far shown that entertainment is a stronger motivation to use social media for satellite fans than local fans (Li et al., 2019), but has not yet put this in context with different engagement levels. This is a particularly interesting finding as it adds to the literature that international satellite fans satisfy their need for entertainment via social media consumption activities, while local fans do not consume social media for this reason. An explanation for this may be that the fandom of satellite fans is based on digital media (Kerr & Gladden, 2008; Li et al., 2017; Pu & James, 2017). Consequently, one of the few ways to consume entertaining content, such as game highlights, is through social media. Local fans, in contrast, have closer access to the stadium, can meet other local fans, or consume local media coverage of newspapers and radio shows (Kolbe & James, 2000; Wann, 2006b; Weng, 2022). However, it needs to be mentioned that due to the high ticket prices, access to the stadium is also becoming increasingly difficult for some local fans (Gough, 2021). Overall, this finding demonstrates that satellite fans get entertainment from social media, while local fans receive this from the offline world.

The second statistically significant difference is that the need for integration and social interaction is negatively influencing the consumption engagement of international satellite fans, but not local fans. In addition, on a descriptive level, it is striking that this need also has a negative impact on the contribution and creation engagement of international satellite fans, but also not local fans. It is not surprising that local fans do not engage in social media for integration and social interaction, as they are surrounded by other local fans of their favourite team in the offline world (Wann, 2006b; Wann & Martin, 2011; Wann et al., 2008). However, it is a surprising finding that international satellite fans are reluctant to engage with other fans on social media. This is particularly interesting, as social interaction is a significant driver for satellite fans' behavioural intentions (Miranda et al., 2021). Their reluctance could be because they do not consider it possible to integrate themselves into the fan nation via social media due to the perceived prejudices of the local fans towards them (Bridgewater, 2010; Hognestad, 2009). Moreover, they might simply enjoy their feeling of uniqueness, on which satellite fandom is often based (Andrijw & Hyatt, 2009; Sveinson & Hoeber, 2016), and would therefore not want to be integrated at all. However, this reluctance could also be due to the investigated platform of Instagram, which is not as community-focused as other social media platforms (Doyle et al., 2022; Keenan, 2022; Sanders, 2022).

The third statistically significant difference is that the need for information is driving the social media contribution of international satellite fans, but not local fans. This is an interesting finding, especially since the need for information is usually mostly linked to consumption engagement (Buzeta et al., 2020;

Muntinga et al., 2011; Saridakis et al., 2016; Shao, 2009; Vale & Fernandes, 2018; Yesiloglu et al., 2021). However, international satellite fans seem to use social media in a different way to get information about their favourite team than local fans. Previous research already demonstrated that satellite fans are more motivated to engage in social media than local fans by the need for information (Li et al., 2019). This is further extended by the present study by showing the differential influence of information on contribution engagement level between both fan groups. It could be that international satellite fans do not have sufficient access to information about their favourite team and therefore need to gather additional information by asking questions in the commentary sections. In contrast, local fans have better access to newspapers or local TV and radio shows about their favourite team due to their geographical proximity (Kerr & Gladden, 2008; Li et al., 2017; Pu & James, 2017) and therefore do not need to engage in contribution activities to gather additional information.

The fourth statistically significant difference is that the need for empowerment is driving the consumption engagement of local fans, but not international satellite fans. This is a significant finding, as empowerment is often associated with active engagement behaviours (Muntinga, 2013, 2016; Muntinga et al., 2011; Saridakis et al., 2016; Vale & Fernandes, 2018). In the context of sports fans, previous research has only shown an influence on contribution and creation activity levels (Saridakis et al., 2016; Vale & Fernandes, 2018). However, this could be a consequence of the fact that these studies did not distinguish between local and satellite fans. One possible explanation for empowerment influencing local fans' social media consumption could be that

they feel such a strong need to empower themselves that they even actively seek out appropriate content to do so. As the data collection of this study took place during COVID-19 lockdowns, local fans' need for empowerment and its influence on social media consumption, may also have arisen from social isolation and lack of empowerment opportunities in the offline world. Nevertheless, the COVID-19 lockdowns were only a temporary state.

In addition to these differences, some similarities in the motivations for social media engagement were also found between local and international satellite fans. They are summarised and explained in the following sections.

Personal identity is an important driver for all COBRAs for both fan groups. The sports management literature already emphasises that personal identification with a favourite team is substantial for fans of different sports (Funk & James, 2001; Hunt et al., 1999) and does not decrease due to geographical distance (Menefee & Casper, 2011; Reifurth et al., 2019). Therefore, this insight might not only apply to NHL fans, but also to fans of other sports. Overall, personal identity is the key motivation for sports fans' engagement on social media, regardless of geographical distance, and thus offers the opportunity to target all fans in a *Global Sports Fan Nation*.

Another similarity is that the need for remuneration do impact social media contribution and creation activities of local and international satellite fans. Thus, both fan groups engage in contribution and creation activities to participate in social media competitions or gaining other forms of rewards. This result is comprehensible as the use of rewards to influence engagement on social media is a proven marketing tool (Rehnen et al., 2017).

Furthermore, the need for empowerment does impact social media contribution and creation activities of both local and international satellite fans. This is a significant finding because it indicates that international satellite fans are not as reserved as expected. On the contrary, the contribution and creation engagement of international satellite fans is influenced by empowerment, just as it is with local fans. Previous research argues that there are already small differences between the perception and general understanding of the favourite sports team between committed satellite and local fans due to the constant connection via the internet (Rookwood & Millward, 2011). Therefore, international satellite fans could be self-confident enough to influence others with their opinion about their favourite team via social media and empower themselves in this way. Another possible explanation is that the anonymity of the internet simplifies it for international satellite fans to empower themselves through social media. This anonymity is further reinforced for fans of internationally famous teams by their large fan nation. However, the same could be true for local fans.

In summary, examining the relationship between the six-folded U&G motivation set and the three COBRA levels between local and international satellite fans revealed a variety of differences and similarities. Many of these findings have not yet been uncovered, as there is a limited number of research on the satellite fan segment. However, although there are similarities, this study found that there are numerous differences in the motivations for social media engagement with their favourite team between local and international satellite fans. The first research question can thus be answered to the effect that international satellite fans exhibit some important differences in terms of

motivations for their engagement in social media compared to local fans. The main differences are that for international satellite fans, the need for entertainment as well as integration and social interaction influences their consumption engagement level, but not for local fans. Additionally, the need for information drives their contribution engagement, but not for local fans. In contrast, the need for empowerment impacts the consumption engagement of local fans, but not that of international satellite fans.

### 7.2.3 Review of the Second Research Question

Also the second research question was introduced in subchapter 1.3 and is as follows:

**RQ2:** *How does the impact of social media engagement with their favourite team on fan loyalty differ between international satellite fans and local fans?*

In order to find a response to the second research question of this study, the social media engagement levels of consumption, contribution, and creation were related to both dimensions of fan loyalty, namely attitudinal and behavioural loyalty. Again, geographical distance was included as a moderator in the conceptual model to compare local and international satellite fans. This research question was also mainly answered by the results of the chi-square difference test. In total, three statistically significant differences were determined in this context. Additionally, further differences were found when significant and non-significant paths were compared on a descriptive level. The differences are summarised and explained in the sections below.

The first statistically significant difference is that social media consumption has a stronger effect on attitudinal loyalty of international satellite fans than on that

of local fans. This underlines that social media consumption activities also serve to maintain and increase the attitudinal loyalty of local fans. However, the stronger effect for international satellite fans could be explained that they often only have access to their favourite team through digital media (Ben-Porat, 2000; Li et al., 2017; Pu & James, 2017), while local fans have also connection points to their team in the offline world. This finding is significant as it highlights that consumption of brand-related social media content can create for sports fans a sense of connectedness (Chen, 2011), such as attitudinal loyalty (Bauer et al., 2005; Bauer et al., 2008). The effect on attitudinal loyalty is stronger, however, the more dependent the fan is on social media due to their geographical distance.

The second statistically significant difference is that social media consumption is driving behavioural loyalty of international satellite fans, but not local fans. This is a surprising and interesting finding, because due to geographical proximity, local fans actually have better access to their team and other local fans via the stadium, team stores, local events, or high media presence. However, even though international satellite fans have to deal with hurdles such as limited access to fan merchandise or kick-off times in the middle of the night (Ben-Porat, 2000; Pu & James, 2017), their behavioural loyalty is influenced by social media consumption. Again, this could be explained by the overall dependence of these oversea fans on digital media (Ben-Porat, 2000; Li et al., 2017; Pu & James, 2017).

The third statistically significant difference is that creation engagement activities on social media is driving attitudinal loyalty of international satellite



fans, but not local fans. This is also an interesting finding, as it was suggested that international satellite fans may be more reserved in their social media creation activities. However, it was found that creating and posting content on social media strengthens their inner attitude towards their favourite team. One possible explanation for this could be that creation engagement on social media is the strongest form of support that international satellite fans can show their favourite team from afar. This again underlines the social media dependency of international satellite fans (Ben-Porat, 2000; Li et al., 2017; Pu & James, 2017) and that social media creation engagement can cause a sense of connectedness (Chen, 2011). Local fans, in contrast, have the opportunity to support their team in the stadium (Weng, 2022), which means that creation social media engagement is not the strongest form of team support for them and therefore might not influence their attitudinal loyalty.

Furthermore, when comparing the significant and non-significant paths of the two fan groups, an additional difference can be found on a descriptive level. While contribution engagement on social media is impacting the attitudinal loyalty of international satellite fans, this is not the case for local fans. This difference could be due to the fact that liking and commenting on brand-related content, along with creation engagement, is one of the few ways for international satellite fans to show their favourite team support from afar. As already mentioned, local fans, in contrast, have far more opportunities to support their team due to their geographical proximity and can also do this in the offline world. This finding again highlights the social media dependency of international satellite fans (Ben-Porat, 2000; Li et al., 2017; Pu & James, 2017)

and shows that social media contribution activities can also lead to a sense of connectedness (Chen, 2011).

Besides these differences, there are also similarities between local and international satellite fans. The behavioural loyalty of both fan groups is influenced by the social media engagement activities of contribution and creation. This is also a significant finding, especially because, international satellite fans have limited consumption options for their favourite team, unlike local fans (Ben-Porat, 2000; Pu & James, 2017), and were expected to be more reserved in their social media creation engagement. However, the results demonstrate that sports fans, regardless of their physical proximity to their team, who actively participate in contribution and creation engagement on social media have increased behavioural loyalty. This adds to previous research that demonstrates that geographical distance does not diminish fandom (Menefee & Casper, 2011; Reifurth et al., 2019). Moreover, the results show that even local fans, who are not as dependent on social media as their international counterparts, can be influenced by these media. It could be therefore that highly engaged fans display their fan behaviour not only on social media, but also in the offline world.

To summarise, investigating the relationship between the three COBRA levels and attitudinal and behavioural fan loyalty revealed a variety of differences and similarities between local and international satellite fans. In general, these findings have not yet been uncovered, as this is the first study to examine COBRA levels and fan loyalty, and the satellite fan segment is still a young area of research. While offline experiences such as attending a game are

considered important for the development of fan loyalty (Koo et al., 2009), this study showed that loyalty for both fan groups can also be influenced via social media. However, although there are similarities, this research identified numerous differences in the influence of social media engagement on fan loyalty between both fan groups. Social media engagement has been shown to have a greater impact on fan loyalty of international satellite fans than local fans. This demonstrates the dependence of international satellite fans on social media, but also underlines that the loyalty of local fans is not only influenced by the offline world. Therefore, social media is not only an important socialization agent for satellite fans (Phua, 2010; Pu & James, 2017), but also local fans.

Nevertheless, as the data collection took place during the COVID-19 lockdowns, the dependency of local fans on social media in this cross-sectional study may be greater than when they have unrestricted access to the stadium and other local fans. In conclusion, the second research question can be answered to the effect that there are significant differences in the impact of social media engagement activities on fan loyalty between the two fan groups. The consumption engagement level has a stronger impact on the attitudinal loyalty of international satellite fans than that of local fans. In addition, this engagement level also influences their behavioural loyalty, but not for local fans. Furthermore, the contribution and creation engagement levels are only driving the attitudinal loyalty of international satellite fans.

### 7.3 Contribution to Knowledge

This present study has made several theoretical contributions to the existing body of literature in U&G motivations, social media engagement with brand-related content, sports fan loyalty as well as local and satellite fans. Overall, the theoretical contributions can be summarised in six areas, which are presented below.

First, this study extends the U&G theory by incorporating geographical distance as a moderator of sport fans' motivations for social media engagement with team-related content and its influence on their loyalty. To date, only a limited number of U&G research has examined how geographical distance affects motivations and media use (Dainton & Aylor, 2002; Guo et al., 2010; Li et al., 2019; Pettersson, 1986; Tsai & Men, 2017). Of these studies, only one comes from the sports management literature and compares the motivations to follow a team on social media between local and satellite fans (Li et al., 2019). This thesis, however, extends the study of Li et al. (2019) by investigating how geographic distance is influencing the relationship between U&G motivations and COBRAs as well as the relationship between COBRAs and fan loyalty.

Specifically, statistically significant differences between the two fan groups were identified from entertainment, integration and social interaction, and empowerment motivations on the consumption engagement level, information motivation on the contribution engagement level, the consumption engagement level on attitudinal and behavioural loyalty and the creation engagement level on attitudinal loyalty. The results demonstrate that for

international satellite fans more U&G motivations are significant for their social media engagement and that this engagement also has a greater impact on their fan loyalty than that of local fans. In this way, it is added to the current body of literature that geographical distance does indeed impact on these relationships and that local and international satellite fans are therefore distinct sports fan groups.

Second, the creation of the conceptual model is also a theoretical contribution to the literature. The conceptual model of this study extends previous research by combining drivers for social media engagement, different engagement levels on social media, fan loyalty, and geographic distance in a single framework. The conceptual model was confirmed by SEM. Thus, it was shown that different needs lead to different social media engagement activities and that this in turn has an impact on fan loyalty. In this way, it was also demonstrated that this process is moderated by the geographical proximity of the sports fan to their favourite team.

Third, this study also extends the literature by identifying offline brand-related consequences of COBRAs. Previous COBRAs research has demonstrated that word-of-mouth benefits from the consumption engagement activity with brand-related social media content (Piehler et al., 2019). In addition, brand-related content creation has been found to have an impact on brand equity and the user's purchase decision, as it indicates the user's commitment to the brand (Mishra, 2019). Several studies have examined different activity levels of social media engagement and their impact on loyalty (e.g. Fernandes & Castro, 2020; Núñez-Gómez et al., 2020; Van Asperen et al., 2018), while

other studies have combined these engagement levels to one construct in this research context (e.g. Jayasingh, 2019; Mishra, 2021). However, the author is unaware of any research that applied the COBRA levels and tested their influence on loyalty. Therefore, this study is the first to demonstrate the influence of the three COBRA levels of consumption, contribution, and creation on sports fan loyalty.

Some studies that examine the impact of social media engagement on loyalty view loyalty as a general construct rather than dividing it into its attitudinal and behavioural dimensions (e.g. Fernandes & Castro, 2020; Núñez-Gómez et al., 2020). This study, however, divides this construct into attitudinal and behavioural loyalty to assess the influence of social media engagement on fan loyalty more precisely. It adds to the literature that all three COBRA levels have an impact on attitudinal and behavioural loyalty of international satellite fans. In contrast, attitudinal loyalty among local fans is only influenced by the consumption level and their behavioural loyalty is only affected by the engagement levels of contribution and creation. In this context a particularly important contribution is that passive consumption engagement is mainly affecting attitudinal loyalty, while behavioural loyalty generally receives the strongest influence from the active engagement activities of contribution and creation.

Fourth, this study is especially contributing to the satellite fan segment research in the sports management literature. To date the sports management literature has mainly concentrated on geographically local fans (Collins et al., 2016; Pu & James, 2017). This was also confirmed by the systematic literature

review of this study that has demonstrated that there is only a limited number of research on the satellite fan. While numerous studies deal with the internationalisation of sports teams from the perspective of sports organizations (e.g. Hill & Vincent, 2006; Murphy, 2018; Richelieu, 2016; Richelieu et al., 2008; Richelieu & Pons, 2006, 2009), this study investigates the internationalisation of sports teams from the fan perspective. The study focuses specifically on digital media, which offer sports fans unrestricted access to their favourite team regardless of time and place (Kerr & Emery, 2016; Li et al., 2019; Pu & James, 2017) and is therefore an important driver of sports team internationalisation. It adds differences and similarities of the motivations for social media engagement and its influence on fan loyalty between local and international satellite fans to the current satellite fan literature, by comparing both fan groups in this regard. As international satellite fans have more motivations for their social media engagement and this engagement also has a stronger impact on their fan loyalty, their dependency on digital media is confirmed (Ben-Porat, 2000; Li et al., 2017; Pu & James, 2017). It also highlights that social media is an important connection point for satellite fans to their favourite team.

In addition, the negative influence of the need for integration and social interaction on all international satellite fans' COBRA levels indicates that Instagram is not being used to connect with other fans of the favourite teams' fan nation. This extends research that found that satellite fandom is based on a sense of isolation and uniqueness (Andrijiw & Hyatt, 2009; Sveinson & Hoerber, 2016).

Moreover, most studies on satellite fans to date have focused on football and Chinese satellite fans. This research, however, contributes to satellite fan segment literature, by adding findings about German satellite fans of the NHL and comparing these findings to local NHL fans. The empirical findings confirmed that these are two distinct fan groups in terms of motivations for social media engagement and their influence on their fan loyalty.

Fifth, this research supports previous studies that have also examined the COBRAs framework and its six-folded motivational set (e.g. Buzeta et al., 2020; Saridakis et al., 2016). In this study, SEM demonstrated that the U&G motivations entertainment, integration and social interaction, personal identity, information, remuneration, and empowerment are driving the different COBRAs levels of consumption, contribution, and creation. Therefore, the COBRAs framework of Muntinga et al. (2011) is also supported and further strengthened by this study. In addition, it was shown by the empirical findings that for different user groups of a specific social media channel – in this study local and international satellite fans that use Instagram – the paths in the COBRAs framework can have different importance. So far, such differences in the COBRAs framework have only been found among users of different social media channels (Buzeta et al., 2020).

Furthermore, extant sports management literature did only investigate the COBRAs framework with basketball (Saridakis et al., 2016) and football fans (Vale & Fernandes, 2018). This study extends the literature to a new context by examining the COBRAs framework with NHL fans. In particular, it is also the first study that applies the COBRAs framework to a comparison of local



and satellite fans. Rather than examining the social media engagement of fans of a particular sports league, this study examines the COBRAs framework within different fan types of a sports league. This is important to better understand and address the social media usage of different sports fan groups.

Bringing this all together, this study also extends the sports fan literature with a systematic taxonomy of the *Global Sports Fan Nation*, which includes local fans and satellite fans with their various subtypes. While previous segmentations of sports fans are mainly considered demographic, psychographic, behavioural, and psychological characteristics (e.g. Funk & James, 2001; Hunt et al., 1999; Samra & Wos, 2014; Stewart et al., 2003; Tapp & Clowes, 2002), or the fan's value for sports organizations (Uhrich et al., 2020), the *Global Sports Fan Nation* framework merely clusters different types of sports fans based on geographic constraints. In particular, the framework has shown that the *Global Sports Fan Nation* of a sports team consists of local and satellite fans. Additionally, it demonstrated that satellite fans can exist at national and international levels. The framework's definitions provide a basis not only for this study but also for future research to address the inhomogeneity of definitions in current satellite fan studies.

All listed areas are valuable theoretical contributions to the current body of literature in U&G motivations, brand-related social media engagement, sports fan loyalty as well as local and satellite fans. In addition to the theoretical contributions, practical contributions have also emerged from this study and are presented in the following subchapter.

#### 7.4 Contribution to Practice and Implications

From the key findings discussed in chapter 6.3, recommendations and practical implications can be derived for sports organizations to target local and international satellite fans via social media. These recommendations are specifically relevant for professional teams that have sporting success on an international level and superior international sports leagues, as these organisations have large numbers of satellite fans. They are of particular importance as it is very likely that an increasing number of sports fans will not reside near their favourite team as watching sports via digital media continues to become more popular (Collins et al., 2016). But access to the stadium can also become increasingly difficult for local fans due to high ticket prices (Gough, 2021).

Furthermore, the sports business is facing an increasing disconnection with their fans (Kim & Trail, 2011), and therefore needs to address the key challenge of how to motivate its fans to engage on social media to strengthen their relationship (Mishra, 2021; Stavros et al., 2014). As social media has contributed significantly to the transformation of communication between consumers and businesses (Lamberton & Stephen, 2016; Malthouse et al., 2013), COBRAs have gained strategic importance in the online marketing context (Schivinski, 2021). Therefore, Reifurth et al. (2019) suggest targeting not only satellite fans but also local fans via social media, as they can also be influenced by it. However, targeting different fan types with the same content could be complex. They may have differing needs, so there is a risk that a post will engage one fan type but alienate another. This could be one reason why some sports teams have additional social media accounts for certain countries

(Burns Ortiz, 2016). The following recommendations provide initial responses to these challenges.

According to the conceptual model and its analysis, the social media consumption of local and international satellite fans can be increased in different ways. Both fan groups are motivated by their personal identity and their need for information to engage in consumption behaviour. Therefore, their consumption can be increased by posting content that supports identification with the team (e.g. symbols of the city, past championships, or especially for satellite fans highlights of famous foreign players) and includes the latest team news and updates. Furthermore, the social media consumption of local fans is also driven by their need for empowerment. So, offering fan feedback opportunities in social media could be an additional option to target local fans. This also allows local fans to consume the feedback of other fans as well as the answer of their favourite team and decide whether they want to react on it. Therefore, the comment function should be offered under every post, as it is also consumed. In contrast, international satellite fans are also motivated to consume content by their need for entertainment. Thus, sports teams should increasingly post entertaining content such as game highlights.

The findings of this study also demonstrated how to increase the social media contribution engagement of local and international satellite fans. Both fan groups are motivated by their personal identity, need for empowerment, and need for remuneration to engage in contribution activities. This again underlines the importance of posting content that displays important symbols of the team that sports fans identify with and providing opportunities for fan

discussions and feedback in social media. The social media contribution of both fan groups can also be strengthened by offering contests and competitions. Therefore, in the future, NHL teams should not only offer social media contests for local fans (e.g. NHL, 2021a; Vancouver Canucks, 2022b), but also for geographically distant fans. In contrast to local fans, international satellite fans do also engage in contribution activities due to their need for information. Thus, all posts that contain news and updates about a sports team should be able to be liked, commented on, and shared.

However, sports organizations with a large number of satellite fans should monitor whether sufficient information is available to their entire fan nation, as satellite fans do not have access to additional coverage such as regional newspapers or local TV and radio shows. If there is not enough information available, the information on their online media should be improved so that international satellite fans do not have to engage in contribution activities on social media to receive sufficient information about their favourite team. As satellite fans are usually well educated (Ben-Porat, 2000), it is possible for English-speaking teams to provide coverage for both local and satellite fans in the team's home language.

This research also sheds light on the motivations for social media creation activities of local and international satellite fans. No differences were identified between both fan groups. They are motivated by their personal identity, need for empowerment, and need for remuneration. Sports teams, could incentivise creation activities by regularly acknowledge their fans' posts showing their identification to the team with likes, comments or by reposting the post. To

encourage sport fans to demonstrate their team identification even more in social media posts could be further strengthened by their need for remuneration. For example, DirecTV once gave satellite fans on a national market level the opportunity to share their stories in a video of how they support their favourite NFL team from afar. The winner was named America's top displaced fan (King, 2009). Something similar could also be offered to the local fans, which would also support both fan groups to get closer to each other. However, the top fan of a sports team could also be searched for on a global level, without distinguishing between local and satellite fans. This type of competition would further unite the *Global Sports Fan Nation*. Furthermore, encouraging fans and providing them with opportunities to post content to express their opinions would satisfy both fan groups' need for empowerment and further increase their social media creation engagement.

This study also provides practical recommendations on how to increase the loyalty of local and international satellite fans via social media engagement. The findings indicate that the attitudinal loyalty of local fans increases if they consume team-related social media content. Thus, by addressing in social media the personal identity as well as the needs for information and empowerment of local fans, the consumption engagement and thus the attitudinal loyalty of these fans can be strengthened. In contrast, the attitudinal loyalty of international satellite fans is positively impacted by consumption, contribution, and creation engagement. This means that by addressing in social media the personal identity as well as the needs for information, remuneration, and empowerment of international satellite fans, their

consumption, contribution, and creation engagement, and thus also their attitudinal loyalty, will be increased.

Moreover, the findings of this study show that the behavioural loyalty of local fans is impacted by contribution and creation engagement in social media. Consequently, by addressing in social media the personal identity and needs for remuneration and empowerment of local fans, their contribution and creation activities, and thus also their behavioural loyalty will be strengthened. In addition, this research highlighted that the behavioural loyalty of international satellite fans is impacted by consumption, contribution, and creation engagement on social media. Therefore, by addressing in social media the personal identity as well as the needs for entertainment, information, remuneration, and empowerment of these fans, their consumption, contribution, and creation social media activities, and thus also their behavioural loyalty will increase.

This research demonstrates the sports business that local and international satellite fans are two distinct fan groups in terms of their motivations for social media engagement and its influence on their loyalty. They have to be addressed differently in some cases and their social media engagement has different effects on their fan loyalty. The comparison of the two fan groups has shown that sports organisations should especially address fans' personal identity with their favourite team on social media, as this is driving all engagement levels of both groups. Furthermore, sports organisations need to be aware that social media engagement has a greater impact on the loyalty of international satellite fans, but also influences the loyalty of local fans. Passive

engagement (i.e. consumption) tends to have a larger effect on attitudinal loyalty, while active engagement (i.e. contribution and creation) tends to affect stronger behavioural loyalty.

Considering these findings, sports organizations can strategically use social media marketing to influence the loyalty of local but also geographically distant fans, such as increased relationships or the purchase of fan merchandise. Although local and satellite fans are distinct fan groups, the results showed that they can be addressed through a general Instagram account. However, as integration and social interaction showed no impact for local fans as well as an negative effect on international satellite fans' social media engagement, Instagram is not a suitable online channel to unite local and satellite fans in the *Global Sports Fan Nation*. For this reason, and also because of the various differences identified, each fan group could also be targeted more specifically through a separate account. Based on the practical contributions mentioned above, both approaches can lead to success. In both cases, implementing these recommendations within a professional sports team will require the collaboration of several departments within the organisation, such as the social media content team, branding department, and international offices.

## 7.5 Limitations

Like any research, this study is subject to limitations. In total there are four main areas of limitations in this study. They are presented and discussed in the following sections.

First, this research is of quantitative nature. Therefore, the conceptual model and the individual factors of this study are bound to generalisation.

Quantitative research sacrifices depth in order to represent a wide range of participants in the study. Qualitative research (e.g. in-depth interviews and focus groups) will be needed to uncover the precise details and nuances of the relationships between the individual factors.

Second, even though the sample sizes used in this research are large (local fans  $n = 472$ ; international satellite fans  $n = 465$ ), the application of snowball sampling technique limits the potential generalisability of the findings. As snowball sampling is a non-probability sampling technique, it could result in a non-random sample (Taherdoost, 2016). This sample could be biased and unbalanced with respect to selected demographic characteristics (Berg, 1988; Faugier & Sargeant, 1997; Sadler et al., 2010). For example, some findings may be influenced by significant differences in age and gender between the local and international satellite fan samples. However, in chapter 5.3 it was shown that local NHL fans are generally older and include more women than German NHL fans. It was concluded that both samples are representative for their target population. Furthermore, subchapter 4.3.7 already discussed that the use of snowball sampling was necessary because the target populations were hard-to-reach participants. In addition, applying this sampling method across different social media channels and social media groups reduces potential bias by expanding the sample to include people unknown to the researcher, as well as many other participants.

Third, the generalisability of this study is limited not only by the applied snowball sampling technique but also by the investigated populations. As already stated above, the samples of the local and international satellite fans



are representative. In addition, the samples are made up of fans from all NHL teams, so that no team-specific bias is present. In the German satellite fan sample, however, a larger number of participants follow a particular team. But subchapter 5.3.2 has shown that this is due to a typical feature of satellite fandom caused by a famous German NHL player of that team. Nevertheless, while the findings are generalisable within local and German NHL fans, they may not be transferable to fans of other sports and sports leagues. In particular, the results only support sports organisations that play in a superior league or have sporting success on an international level, as these teams have a large number of satellite fans. Thus, the results of this study do not refer to fans of individual athlete-based sports.

Furthermore, as the US and Canada are very sparse, a local team may be one that is located in a city over 100 miles (160 km) (Misachi, 2017; World Population Review, 2022). In terms of generalisability, there could therefore also be local fans who, depending on the local fan definition (see subchapter 2.2.2.1), were not included in the local fan sample of this study. However, to be consistent with the *Global Sports Fan Nation* framework and the NHL branding radius, this study applied a 100 miles (160 km) radius measure.

In addition, the results only refer to Instagram and are therefore also not necessarily transferable to fans that use different social media, as each social media platform was developed for different purposes and target groups (Ngai et al., 2015). Instagram is primarily designed for branding due to its visual forms (Doyle et al., 2022; Keenan, 2022). Therefore, this social media platform may not offer the same opportunities for social interaction as other platforms.

Fourth, the data collection process took place between 31/03/2021 and 30/06/2021. At the time, there were regional COVID-19 lockdowns, many NHL stadiums were fully closed or only open to fans with limited capacity (Encina, 2021). This limited the access of the local NHL fans to their favourite team and may have influenced their dependency on social media at that time. The increased dependency, for example, could have led to a higher social media engagement of local fans participating in this cross-sectional study. This means that the timing of the study may have led to local fans and international satellite fans being more similar than they would otherwise be. Therefore, it would be interesting to conduct the same study with local fans while NHL stadiums are at full capacity and compare the results with this research.

To conclude, this study should be interpreted within the limitations mentioned above. Finally, the future research directions of this study are discussed in the last subchapter of this thesis.

## 7.6 Future Research

This study focused in particular on researching the satellite fan segment. It achieved its research aim by identifying differences and similarities in the motivations for social media engagement and its influence on fan loyalty between local and satellite fans. In particular, local NHL fans and international satellite fans from Germany were compared. Thus, this study determined the influence of the two extremes of local geographic proximity and foreign geographic distance with differences in language and time.

On the one hand, conducting a similar study with international satellite fans from other countries and compare these results with this study could add

additional knowledge to the area of research. The same could be done with fans of other sports and sports leagues. As this study only examined Instagram, a similar study could also be conducted with another social media channel that is relevant to the sports business. For example, Facebook, Twitter and Snapchat are also important social media channels for sports fans (Haugh & Watkins, 2016). Comparing these results with the findings of this study would not only contribute to the satellite fan segment research but also to the research area of social media.

On the other hand, satellite fans on a national level could also be investigated in a similar study and compared to international satellite fans. To the authors' knowledge, this would be the first study to compare satellite fans on a national and international level, thus making a significant contribution to this field of research.

Moreover, the *Global Sports Fan Nation* framework has displayed that national and international satellite fans consist of different fan types, namely displaced, detached, and distant fans. As the systematic literature review of the satellite fan segment showed that satellite fans are an under researched but emerging research area, there are a multitude of future research avenues with these satellite subtypes. For example, differences and similarities in the reasons and motivations for geographically distant fandom of displaced, detached, and distant fans could be explored on a national and international level. But also researching and comparing the fan loyalty and behaviour of these satellite fan subgroups would significantly add to the existing literature. Another possibility

would be to examine how much knowledge the various subgroups of satellite fans have about the sport and their favourite team.

In subchapter 7.5, it was already discussed that the data collection of study was conducted during COVID-19 lockdowns. Thus, it would be also interesting to conduct a similar study with local fans while stadiums are at full capacity and compare the results with this study. In this way, it could be shown whether COVID-19 lockdowns have affected local fans' dependency on social media. In addition, it was highlighted in the limitations subchapter that qualitative research will be required to uncover the precise details and nuances of the relationships between the individual factors in the conceptual model. In this way, it could be further clarified why this study found the international satellite fans' need for integration and social interaction to have a negative impact on all COBRAs levels. For example, in-depth interviews or focus groups could provide clarity on whether these international satellite fans want to be integrated into the *Global Sports Fan Nation* of their favourite team or enjoy their isolated fandom.

Furthermore, other factorial relationships of the conceptual model could also be investigated in more detail by qualitative studies. Future qualitative research could shed light on what exactly local and international satellite fans want to influence via social media to empower themselves. This could be their favourite sports team or other fans. However, this study demonstrated that the need for integration and social interaction is not necessarily a positive driver of social media engagement on Instagram for both fan groups. Therefore, they

probably want to influence their favourite team, but this has to be proven by future research.

In addition, qualitative methods could be also applied to investigate cultural aspects of fandom. In chapter 1.3 it was emphasised that this study does not examine the possible influence of cultural differences between local and international satellite fans. These cultural differences may be due to their various fandom experiences, but also to their origins in different countries. This could influence the fans' media use or loyalty. Thus, future research is needed to investigate the influence of culture between local and satellite fans.

To conclude, in addition to the significant theoretical and practical contributions of this study, several directions for future research have also emerged. In particular, the study of the different subtypes of satellite fans at national and international levels, as well as qualitative research on the desired integration and social interaction of satellite fans, holds the greatest potential for future research.

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## 8 Appendix

### 8.1 Systematic Literature Review of the Satellite Fan Segment

#### 8.1.1 Summary of All Identified Satellite Fan Studies

Year	Title	Findings / Contribution	Terms for Satellite Fan and definitions
1991	The Positive Social and Self Concept Consequences of Sports Team Identification	Baseball: MLB; US fans  Team identification among satellite fans increases when their favourite team is more successful (Branscombe & Wann, 1991).	displaced fan, fan of geographically distant team  (No definition)
2000	Globalised Football Fandom: Scandinavian Liverpool FC Supporters	Football: Premier League; Scandinavian fans  The fandom of Scandinavian satellite fans is becoming more mature and connected to larger contexts than only football clubs. These fans are searching for authenticity and are at risk of having contradictory values and messages transmitted through the internet (Nash, 2000).	globalised fan, foreign supporter, distant fan  "Scandinavian supporters of Liverpool FC" (p. 5)
2000	Overseas Sweetheart – Israelis Fans of English Football	Football: Premier League; Israelis fans  Israeli fans of the English Premier League are highly committed to their British club, much more than to their local club. Furthermore, they are a part of the new middle class and have a decent education, which allows them to read foreign newspapers, to listen to the BBC and to communicate with the English club and the players. For these fans, the club is an "oversea sweetheart" (Ben-Porat, 2000).	Israeli fan of English football  (No definition)
2002	Long Distance Love - Growing Up a Liverpool Football Club Fan	Football: Premier League; South African fan  Through imagination alone, fandom to a distant team can overcome distance and lack of technology (Farred, 2002).	Liverpool FC fan in apartheid South Africa  (No definition)
2005	Motivation for Japanese baseball fans' interest in Major League Baseball	Baseball: MLB; Japanese fans  Identification of three primary motives for Japanese fan interest in MLB (overall interest in baseball, interest in players, quality of game). The emotional attachment, attitudinal or behavioural loyalty of Japanese fans toward MLB are predicted by these three motives (Hong et al., 2005).	Japanese baseball fan, global fan, international fan  (No definition)
2006	Transnational Passion: A Statistical	Football: Premier League; Norwegian fans	long distance fan, transnational fan

	Study of Norwegian Football Supporters	Digital media significantly enhances the access to distant teams and contact to other fans. Norwegian satellite fans adopted similar moralities as local fans and participate in the same discourses, yet there seems to be an awareness of differences between them and local fans (Hognestad, 2006).	"Norwegian fans of English Football Clubs" (p.443)
2008	Extending the understanding of professional team brand equity to the global marketplace	Creation of a conceptual framework for understanding brand equity among satellite fans (Kerr & Gladden, 2008).	satellite fan  "These fans maintain an emotional bond with a foreign-based team, despite the absence of a shared geography. From the comfort of their living rooms, these fans can marvel at their heroes' athletic exploits content in the knowledge that they are part of a community of fans worldwide" (p. 59)
2008	How people raised and living in Ontario became fans of non-local National Hockey League teams	Ice hockey: NHL; Canadian fans  Attraction to a specific player, the team's colour/uniform, the team's logo, meeting the team's players in person, seeing the team play in person, and the team's status as an underdog were identified as reasons to support a distant team (Hyatt & Andrijiw, 2008).	fan of a non-local team  "Canadian ice hockey fans of non-local NHL teams" (p. 338)
2008	Inventing Team Tradition: A Conceptual Model for the Strategic Development of Fan Nations	Ice hockey: NHL; Canadian local fans, Satellite fans from different countries  Justification that professional sports teams should create and follow a strategy to build a fan nation containing both local and satellite fans. Through the invention of tradition sports teams can address fans at different levels of the Psychological Continuum Model. Furthermore, there are two types of non-local fans: potential members and members (Foster & Hyatt, 2008).	distant fan, non-local fan  (No definition)
2008	Pittsburgh in Fort Worth - Football Bars, Sports Television, Sports Fandom, and the Management of Home	American football: NFL; US fans  Displaced fans can reconnect with their former home via their fandom. Furthermore, sports fandom enables dispersed populations to manage irreconcilable tensions of home (Kraszewski, 2008).	displaced fan  Example: "Smith grew up in Pittsburgh, Pennsylvania. Despite living his adult life in San Diego, he was a lifelong Pittsburgh Steelers fan and watched the games through satellite feeds in his house." (p. 139)
2008	The Positive Relationship between Sport Team Identification and Social Psychological Well-Being: Identification with	Multiple sports and leagues; US fans  Identification with a distant team does not lead to social well-being, but instead, identification with a local team (Wann & Martin, 2011).	non-local fan  "Participants' favourite teams were classified as local if the team could be found within the local county (e.g., one of the local

	Favorite Teams Versus Local Teams		university's teams, a local high school team, etc.). All other teams were classified as a non-local team." (p. 39)
2009	Internationalisation and sport branding strategy: a French perception of the Big Four brands	Football: Premier League; French fans  Identification of the typical satellite fans' perceptions of the English Big Four football brands as well as key antecedents to create a strong brand equity in the French market (e.g. fit between image, values, or both local and distant club a fan supports) (Chanavat & Bodet, 2009).	satellite fan, foreign fan  "For potential foreign customers or satellite fans, to use the term of Kerr and Gladden (2008)" (p. 463)
2009	Nigeria, Football and the Return of Lord Lugard	The frame "Nigeria as colony" is used by the media to report about football. As a result, the Nigerian media portrays Europe as the centre of modern football and Nigeria as secondary (Onwumechili, 2009).	Nigerian football fan, colonized fan  (No definition)
2009	Using Optimal Distinctiveness Theory to Understand Identification with a Nonlocal Professional Hockey Team	Ice hockey: NHL; Canadian fans  Distant fans achieved feelings of belongingness and uniqueness from their distant team identification and thus maintained their team allegiances over time (Andrijw & Hyatt, 2009).	nonlocal fan distant fan, displaced fan  "In defining a nonlocal fan, the authors considered both the geographical distance, in kilometres, separating a team from the fan as well as which team's supporters constituted the numerical majority in the fan's region. When an individual was neither a supporter of the team that was closest to his/her permanent residence nor a member of his/her region's predominant NHL team fan group, he/she was considered as identifying with a nonlocal team, Displaced fans (i.e., those individuals who once resided in the city of their favourite team and now support that team from afar) were not permitted to take part in the study." (p. 161)
2010	Building global football brand equity - lessons from the Chinese market	Football: Premier League; Chinese fans  The level of perceived quality and brand awareness determine the strength of professional football brand equity of Chinese Premier league fans.  Because of the increasing competition on foreign markets, professional football clubs need to improve both additional brand equity dimensions, brand image, and loyalty (Bodet & Chanavat, 2010).	satellite fan  (No definition)



2010	Factors that influence international fans' intention to Travel to the United States for Sport Tourism	<p>Multiple sports; Taiwanese fans</p> <p>The study identified six factors that influence satellite fans intention to travel to the United States for sports tourism (cost and ease of arranging travel plans, interest in professional sports, different cultural experience, interest in travel, experience of watching live sporting events, and the chance to see Asian players or famous US players in the games) (Yu, 2010).</p>	<p>international fan</p> <p>(No definition)</p>
2010	Leveraging fans' global football allegiances to build domestic league support	<p>Football: Premier League, La Liga, Serie A, Scottish Premier League; Australian fans</p> <p>A significant antecedent of interest in the Australian national soccer league is interest in overseas leagues and clubs. Followers of overseas teams are more likely to be major consumers of a new local league than followers of local leagues or followers with nor prior experience. These overseas followers also exhibit stronger attitudinal and behavioural loyalty with the new local league (McDonald et al., 2010).</p>	<p>global supporter, global fan, fan of an overseas team/league, overseas fan</p> <p>"Fans that closely followed overseas leagues or teams" (p. 78)</p>
2011	Examining the State Social Psychological Health Benefits of Identifying with a Distant Sport Team	<p>Basketball: NCAA Basketball league (University of Kentucky men's basketball team), US fans</p> <p>Satellite fans that temporarily find themselves in a group of other fans of the distant team report increased social well-being (decreased loneliness). However, satellite fans did not report increased collective self-esteem (Wann et al., 2011).</p>	<p>displaced fan</p> <p>"Displaced fan (i.e., fan of a nonlocal team / fans who do not reside in the locale where the team is found)" (p. 188, 198)</p>
2011	Foreign fandom and the Liverpool FC: a cyber-mediated romance	<p>Football: Premier League; 37 countries</p> <p>Media coverage, style of play, presence of a particular player, team success, history of success, participation in the highest division, and stadium were determined as primary antecedents of satellite fans' initial identification.</p> <p>Satellite fans derive a psychological benefit from their support of a distant team and have intense loyalty (Kerr &amp; Emery, 2011).</p>	<p>satellite supporter</p> <p>"For many sport fans, a foreign team often becomes 'an 'oversea sweetheart,' far away but close to heart' (Ben-Porat, 2000). Kerr describes these individuals as 'satellite supporters' (Kerr &amp; Gladden, 2008)." (p. 880); "those who identify with geographically distant team (i.e., satellite supporters)" (p. 881)</p>
2011	Professional basketball fans in China: a comparison of National Basketball Association and Chinese Basketball Association team identification	<p>Basketball: NBA; Chinese fans</p> <p>Chinese basketball fans that follow CBA and NBA have an overall higher team identification and behavioural involvement to their favourite NBA team compared to their favourite CBA team (Menefee &amp; Casper, 2011).</p>	<p>Chinese basketball fan, geographically displaced fan, satellite fan, international fan</p> <p>"Geographically distant fans may only be able to watch a team's games on television. Kerr and Gladden (2008) described these international</p>

			fans as 'satellite fans'." (p. 189)
2011	We all dream of a team of Carraghers: Comparing local and Texan Liverpool fans talk	Football: Premier League; US fans  Only small differences in cultural reading about a specific Liverpool player between local and satellite fans were identified. Thus, the cultures of committed local and satellite fans are closer than expected. This closeness could be driven by digital media (Rookwood & Millward, 2011).	Texan Liverpool supporter, geographically distanced fan, oversea fan, oversea supporter, transnational supporter  (No definition)
2016	Analysing the motivations of Japanese international sports-fan tourists	Multiple sports: Baseball (US), Football (Europe, Asia), Basketball (US), Golf (US), Rugby (Oceania), Athletics (Asia / Oceania, US), Formula 1 (Asia), NHL (US); Japanese fans  There are different motivations between male and female Japanese sports fan tourist as well as Japanese sports fan tourist that are mere spectators and those that participate in a sport (Nishio et al., 2016).	Japanese sports fan, international sports fan tourist  (No definition)
2016	Beyond Tippekampen: the origins and maintenance of Scandinavian support for the Liverpool FC	Football: Premier League; Scandinavian fans  The connection between Scandinavian Liverpool FC fans and their club is largely maintained through digital media and cyberspace. In this virtual "third place," satellite fans meet regularly and interact with other Liverpool FC fans. The media, the presence of star players, and Liverpool FC's style of play are found as important factors for satellite fans to maintain their support with their favourite club (Kerr & Emery, 2016).	Scandinavian supporter, satellite supporter, foreign fan  "Kerr describes consumers who support a foreign-based team as 'satellite supporters'. (p. 512)
2016	Female Sport Fans' Experiences of Marginalization and Empowerment	Multiple sports: NFL, NHL, MLB; Canadian fans  Female satellite fans feel empowered when they can demonstrate authenticity and legitimacy in their distant fandom (Sveinson & Hoeber, 2016).	displaced sport fan  "The woman had to be displaced fans, that is, living in a different community than their sport team." (p. 11)
2016	NBA Primary Market Ticket Consumers: Ex Ante Expectations and Consumer Market Origination	Basketball: NBA; mainly North American fans  Differences in the total purchase amounts between satellite and local fans. On average, satellite fans are spending more than local fans. Furthermore, differential spending effects based on the home team win probability are identified (Mills et al., 2016).	out-of-market fan  "Those living within the team's state are considered local consumers while those living outside the state are considered out-of-market consumers." (p. 542)
2016	Online Chinese discussions about the 2014 World Cup	Football: World Cup 2014; Chinese fans  Chinese World Cup fans have rather commented about the World	Chinese sports consumers, Chinese sports fans  (No definition)

		<p>Cup in a positive valence on social media than non-fans.</p> <p>In addition, fans were more likely to discuss topics closely related to the World Cup (e.g. athletes, teams, news), thus establishing an identification with in-group participants (Yang et al., 2016).</p>	
2016	The displaced fan: the importance of new media and community identification for maintaining team identity with your hometown team	<p>American Football: NFL; US fans</p> <p>Digital media and hometown identification affected hometown team identification.</p> <p>Fans with a lower identification with their hometown than their current residence also showed a lower identification with their hometown team than fans with more highly identified with their hometown community.</p> <p>No statistically significant effect on identification with the hometown team if a fan moved to a primary market of another team after leaving hometown (Collins et al., 2016).</p>	<p>displaced fan</p> <p>“People who moved away from the city they grew up in yet still support the team associated with that city” (p. 656)</p>
2016	The impact of brand associations on brand loyalty in the football industry: A comparison of fans from developed and emerging football markets	<p>Football: Multiple leagues; (Developed football market) English, German, Spanish, Italian and French fans, (Emerging football market) Chinese, Indian, Brazilian, Russian and US fans</p> <p>Brand attributes have a negative impact on attitudinal loyalty. In contrast, brand benefits have a positive impact on attitudinal loyalty. Attitudinal loyalty has a strong impact on behavioural loyalty. Significant differences between fans from emerging and developed football markets are identified: For fans from emerging football markets the impact of attributes is not as negative as for fans from developed markets. Furthermore, the impact of attitudinal loyalty on behavioural loyalty is stronger for fans from emerging football markets than fans from developed football markets (Maderer et al., 2016).</p>	<p>satellite fan</p> <p>“Fans from anywhere in the world can access information about their favourite clubs and players, as well as watch games live on TV and via internet streaming services. Consequently, “satellite” fans are of increasing importance to football clubs and their marketing managers, especially as they are often a large percentage of the total number of supporters and can even outnumber local fans” (Kerr &amp; Gladden, 2008)</p>
2017	Effects of social media interactions on brand associations - A comparative study of soccer fan clubs	<p>Football: Premier League; English fans, Greece fans</p> <p>Similarities and differences of the effect of social media interaction on brand associations between English and Greece Premier League Fans (Parganas et al., 2017).</p>	<p>international fan, geographically distant fan</p> <p>“The rise of social media has enabled professional sports teams to enhance the frequency and intensity of their interaction with an ever-increasing worldwide audience. This has led fans to form or maintain bonds with a foreign-based team, despite the absence of a shared geography. Kerr and</p>

			Gladden (2008) refer to such fans as "satellite fans". (p. 150)
2017	Points of attachment on social media: exploring similarities and differences between Chinese and Western National Basketball Association fans	<p>Basketball: NBA; US fans, Chinese fans</p> <p>Chinese satellite fans had a higher dependence on using social media in their daily life compared to Western fans.</p> <p>Chinese satellite fans had a higher association with the sport (basketball), players (NBA), and the league (NBA) than Western fans. In contrast, Western fans had a higher attachment to the team (Li et al., 2017).</p>	<p>Chinese NBA fan, digital sports fan</p> <p>(No definition)</p>
2017	The distant fan segment - Exploring motives and psychological connection of International National Basketball Association fans	<p>Basketball: NBA, Chinese fans</p> <p>Differences in the motives for following a distant team and amount of media consumption at different levels of psychological connection to the distant team (Pu &amp; James, 2017).</p>	<p>distant fan</p> <p>"Those who follow a favourite team to which they are geographically distant and have not previously resided near or even been in physical proximity to their favourite team" (p. 421)</p>
2019	Exploring expatriate fan identification in international football supporter	<p>Football: World Cup 2014; Canadian fans</p> <p>It is an important element of national identification and socio-cultural place for distant fans to support their home or ancestral national team.</p> <p>Digital media offers fan engagement and ethnocultural community building to distant national fans, especially the younger audiences (Burton et al., 2019).</p>	<p>distant supporter, satellite fan, geographically detached supporters, non-domestic international supporter, expatriate supporter/fan</p> <p>Kerr and Gladden (2008) labelled such geographically detached or distant supporters "satellite fans". (p. 83)</p>
2019	International activities of football clubs, fan attitudes, and brand loyalty	<p>Football: Multiple leagues; (Developed football market) English, German, Spanish, Italian and French fans, (Emerging football market) Chinese, Indian, Brazilian, Russian and US fans</p> <p>International business activities, signings of foreign players or internationally recognized coaches, and foreign owners create tension among local fans on attitudinal loyalty, but not behavioural loyalty. In contrast, there were no tensions created by the internationalisation of sponsors and fans. Thus, these internationalisation activities have a positive impact on attitudinal and behavioural loyalty. The fans' country of residence partially moderates the relationships between internationalisation activities and fan loyalty (Maderer &amp; Holtbrügge, 2019).</p>	<p>satellite fan</p> <p>"Fans who listed their favourite club as one from another country (satellite fans)." (p. 416)</p>
2019	Korean MLB players: the effects of motives	Baseball: MLB; Korean fans	<p>international fan</p> <p>Korean MLB fan</p>

	and identification on fan loyalty	Korean MLB fans player identification with Korean MLB players was strongly impacted by interest in MLB followed by commitment to Korean baseball and ethnic identity. Player identification had a positive influence on behavioural loyalty (Chung et al., 2019).	(No definition)
2019	Nonlocal Fandom: Effects of Geographic Distance, Geographic Identity, and Local Competition on Team Identification	Multiple sports: NFL, MLB, NBA, NHL, MLS; US fans, Canadian fans  No matter of the type of satellite fan, increased geographic distance to the distant team was not negatively related to team identification.  Nondisplaced nonlocal fans' team identification does not diminish by the presence of a local team in the same sport or different sports (Reifurth et al., 2019).	nonlocal fan, displaced nonlocal fan, nondisplaced nonlocal fan, displaced fan  "Displaced fans who once lived in and subsequently moved out of or away from the home market for the sport team with which they identify (Kerr & Gladden, 2008). (p. 196); "We conceptualize and operationalize a displaced nonlocal fan as a fan whose nonlocal favourite team is from the same metropolitan area as her self-identified hometown. We conceptualize and operationalize a nondisplaced nonlocal fan as a fan whose nonlocal favourite team is from a different metropolitan area as his self-identified hometown." (p. 196)
2019	Nostalgia, motivation, and intention for international football stadium tourism	Football: European professional football leagues (21 different football clubs, Manchester United was most mentioned); Singaporean fans  Satellite fans' nostalgia has a positive effect on motivation and motivation significantly influences their intention to visit an overseas stadium (Cho et al., 2019).	oversea fan  (No definition)
2019	Steeler Nation in the Midwest: Exploring Membership Benefits of an Out-of-Market Pittsburgh Steelers Fan Club	American Football: NFL; US fans  Satellite fans participating in a local fan club had the opportunity to discuss the distant team with other fans, improved their overall well-being, and enhanced their fandom (Scola et al., 2019).	out-of-market fan, satellite supporter, displaced fan  "According to Collins et al. (2016), displaced fans are 'people who moved away from the city they grew up in, yet still support the team associated with that city' (p. 2). Other scholars describe these out-of-market fans as 'satellite supporters' (Kerr, 2009)." (p. 356)
2019	Why we follow: Examining motivational differences in following sport organizations on Twitter and Weibo	Basketball: NBA; US fans, Chinese fans  Differences in the motivations to use digital media to follow a sports team between satellite and local fans (Li et al., 2019).	satellite fan, Chinese NBA fans  "Researchers have suggested that sport organizations should cultivate fandom in foreign markets and seek to develop these satellite fans because

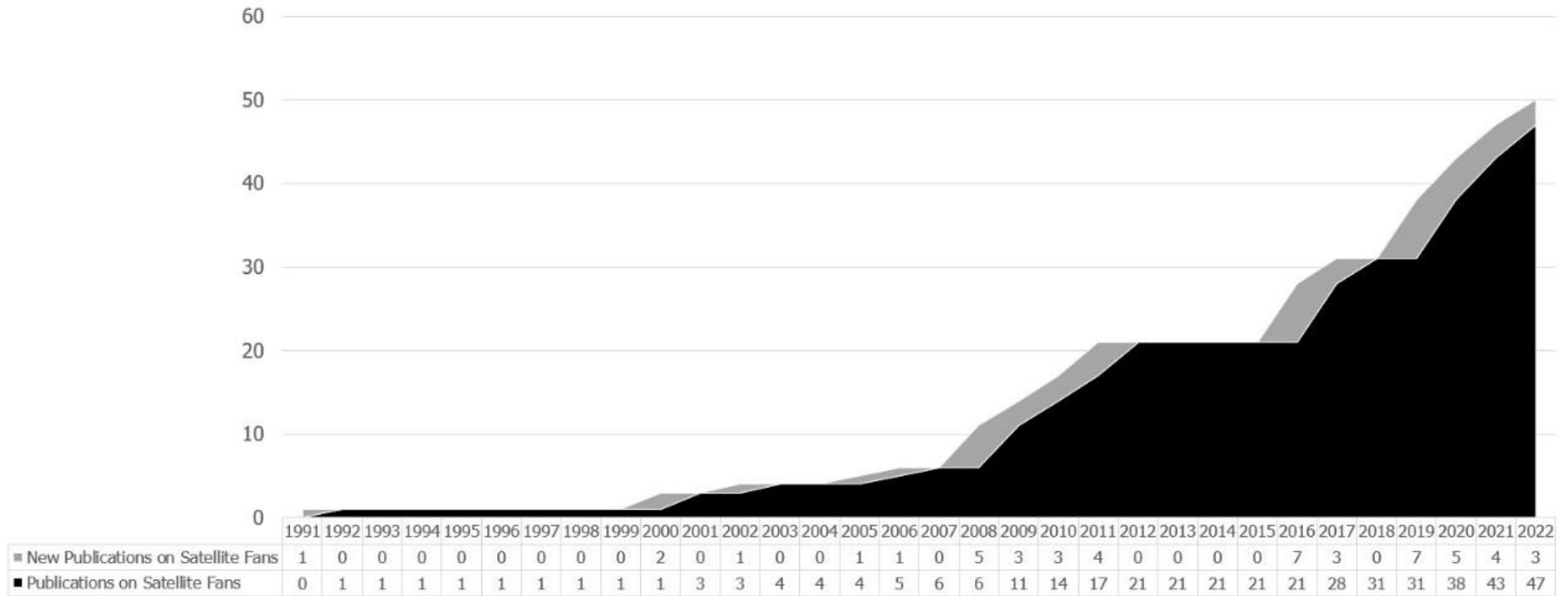
			of the positive impact they can have on the brand (Kerr & Gladden, 2008). (p. 4)
2020	Elevating self-esteem through sport team identification: a study about local and distant sport fans	Football: Premier League, Super League; Greece fans  The paths from team identification to collective self-esteem and from collective self-esteem to personal self-esteem displayed no differences between distant and local fans. These benefits are similar to those of local fans (Lianopoulos et al., 2020).	distant fan  “One area that remains unexplored concerns the fans who support foreign sport teams, namely distant fans. Research has shown that many fans, although they have no connection with their favourite teams’ countries or nationalities, do identify with such teams. (Kerr & Emery, 2016; Menefee & Casper, 2011; Pu & James, 2017).” (p. 2); “In line with previous scholars (e.g., Kerr & Emery, 2016; Pu & James, 2017), this study considers distant fans as individuals who support a sport team which is located outside their home country and who have no connection with its nationality.” (p. 2)
2020	Segmenting Satellite Supporters Based on Their Value for Team Sport Organizations	Multiple sports: NFL, NBA, MLB, NHL, Premier League, La Liga, Serie A, Bundesliga, Ligue 1; Chinese fans, Japanese fans, German fans, UK fans  Identification of three satellite fan segments based on financial (i.e. transactional value) and non-financial values (i.e. influencer value and relationship value): High Value Satellite Fans, Mid Value Satellite Supporters, and Low Value Satellite Casuals (Uhrich et al., 2020).	satellite fan  “Sports enthusiasts who follow team sport in foreign countries (Kerr, 2009).” (p. 2)
2020	Sport brands' attraction factors and international fans	Football: Premier League; Chinese fans  Organization-induced factors (e.g. style of play, composition of the team) are the most important club brand attraction factors for distant fans. The importance of attraction factors for fans is influenced by demographic and individual characteristics (e.g. loyalty levels and brand identification) (Bodet et al., 2020).	international fan, distant fan, satellite fan, foreign-based fan  “Foreign-based consumers, known as ‘satellite fans’ (Kerr & Gladden, 2008).” (p. 148)
2020	Team Identity, Supporter Club Identity, and Fan Relationships: A Brand Community Network Analysis of a Soccer Supporters Club	Football: Premier League; US fans  The satellite fans within a supporter club identified with the subgroup (supporter club) and the superordinate (team) in similar ways, but the effects of the supporter club and team identification were different (Katz et al., 2020).	distant sport fan, remote fan, displaced fan  “For distant sport fans located hundreds, thousands, or tens of thousands of miles from their favourite teams.” (p. 9)
2020	Uniting a sport teams' global fan	Football: La Liga, Bundesliga; Chinese fans	satellite fan, displaced fan, international supporter

	community: prototypical behavior of satellite fans enhances local fans' attitudes and perceptions of groupness	Local fans have a more positive attitude towards satellite fans who engage in prototypical fan behaviour. The more local fans perceive the internationalisation of their team as a process that jeopardizes their economic (e.g. ticket availability) and social (e.g. identity enhancement) resources, the more the effects of prototypicality diminish (Behrens & Urich, 2020).	"Teams seek to increase their fan base by attracting new supporters in foreign countries, these international supporters are referred to as 'satellite fans' (to be distinguished from local fans who moved away – referred to as 'displaced fans') (Kerr, 2009)." (p. 2)
2021	Does team identification of satellite fans influence brand-related sponsorship outcomes? What we learned from Manchester United supporters in Malaysia	Football: Manchester United, Malaysian fans  For satellite fans, team identification has an effect on the perceived fit between sponsor and the sport brand, perceived fit on sponsor's products perceived brand quality and on word-of-mouth, and perceived brand quality on word-of-mouth (Tsordia et al., 2021).	satellite fan  "According to Kerr and Gladden (2008, p. 61), satellite fans are 'those fans who, despite lacking shared geography, have forged an emotional bond with a foreign-based team.'" (p. 1)
2021	Long-distance football fandom: emotional mobilities and fluid geographies of home	Football: 21 different football teams (most popular Liverpool F.C.); New Zealand fans  Through the use of television and digital media satellites fans create virtual homes for their distant team. Thus, geographies of home can be performed and felt in a variety of stretched and dispersed spaces through sport fandom (Baker, 2021).	long-distance fan  "Fans who support a football club based in a different country to that in which they currently reside." (p. 2)
2021	Satellite fans: Does sport nostalgia influence purchase intention toward sponsors' products?	Football: European professional football leagues (18 different football clubs, Manchester United was most mentioned); Singaporean fans  Among satellite fans, sport nostalgia has a direct positive effect on attitude and purchase intention towards the products of the sponsors of the European professional football leagues. Furthermore, it also has a significant indirect effect on purchase intention via attitude (Cho, Lee, et al., 2021).	satellite fan  "Satellite fans can be defined as international fans who avidly follow their favourite teams based outside of their home country and watch games with other fans via diverse types of media platforms such as television, Twitter, Instagram and YouTube. (Behrens & Urich, 2020; Kerr & Gladden, 2008; Maderer et al., 2016; Pu & James, 2017)." (p. 2)
2021	Travel overseas for a game: the effect of nostalgia on satellite fans' psychological commitment, subjective well-being, and travel intention	Football: European professional football leagues (18 different football clubs, Manchester United was most mentioned); Singaporean fans  It was found that nostalgia had a significant effect on satellite fan psychological commitment and subjective well-being. Satellite fans' psychological commitment also had an effect on subjective well-being. Furthermore, satellite fans' psychological commitment and subjective well-being had positively affected their travel intention to attend European professional	satellite fan, displaced fan, international fan  "Given the prevalence of globalized sport market, professional leagues or teams have paid increasing attention to overseas supporters, which are referred to as 'satellite fans' (Kerr & Gladden, 2008)." (p. 2); Satellite fans are those who enthusiastically support foreign-based teams without shared geography (Behrens & Urich, 2020; Kerr &

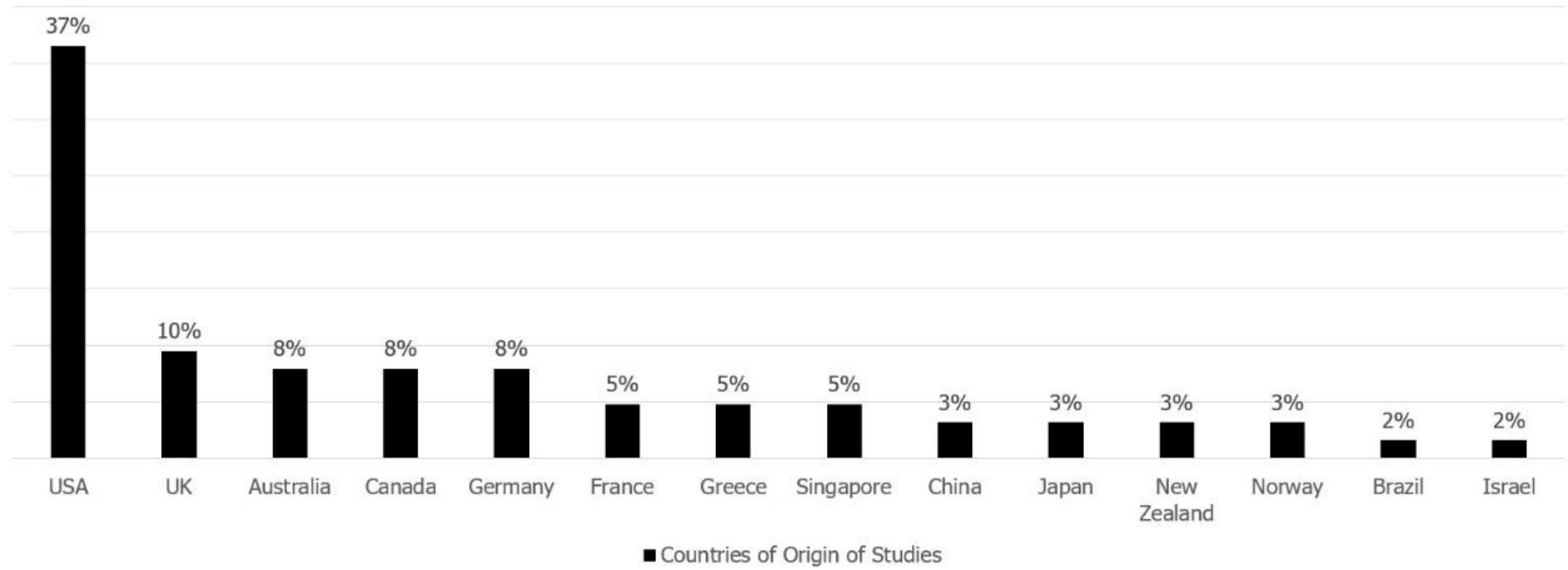
		football league games (Cho, Chiu, et al., 2021).	Gladden, 2008). In particular, the concept of satellite fans defined above is specific to the international fans who live far away from their favourite team and watch the games with fellow fans through various forms of mass media (e.g., television) and even other social media platforms (e.g., YouTube, Facebook, Snapchat, and Twitch) (Behrens & Uhrich, 2020; Kerr & Gladden, 2008; Maderer et al., 2016, Pu & James, 2017). It should be noted that satellite fans are different from displaced fans, which refer to local fans who moved away from their hometown, yet still support the hometown team (Collins et al., 2016; Pu & James, 2017).” (P. 2)
2022	Consumption of the National Basketball Association in Brazil: the motives of distant fans	Basketball: NBA, Brazilian fans  Both vicarious achievement and social interaction are motives that positively influence behavioural intentions related to the NBA (Miranda et al., 2021).	distant fan  “Distant fans can be considered individuals who follow a sports team that is far away geographically and have never lived or been physically close to that team” (Pu & James, 2017). (p. 1)
2022	Keeping It Real or Bridging the Gap? Brand Positioning of US Sport Teams in Germany and China	Multiple sports: NBA, NFL, NHL; German fans, Chinese fans  German fans respond more favourably to merely foreign brand positioning, whereas Chinese fans prefer local adaptations of the US brands to Chinese customs (Behrens et al., 2022).	satellite fan  “Fans who follow sport teams from a foreign country.” (p. 105)
2022	Tangibility of Sports Team Identification and Place Attachment through a Visit to the Stadium	Football: different football teams (Real Madrid, Manchester United, Arsenal, FC Barcelona, Manchester City, Borussia Dortmund); Chinese fans  Visiting the stadium is a pilgrimage for geographically distant fans. Moreover, their attachment to the stadium is mainly due to team identification. In contrast, for local fans, stadium attendance can be a ritual and their attachment to the stadium is linked to their community (Weng, 2022).	distant fan, satellite fan  (no definition)



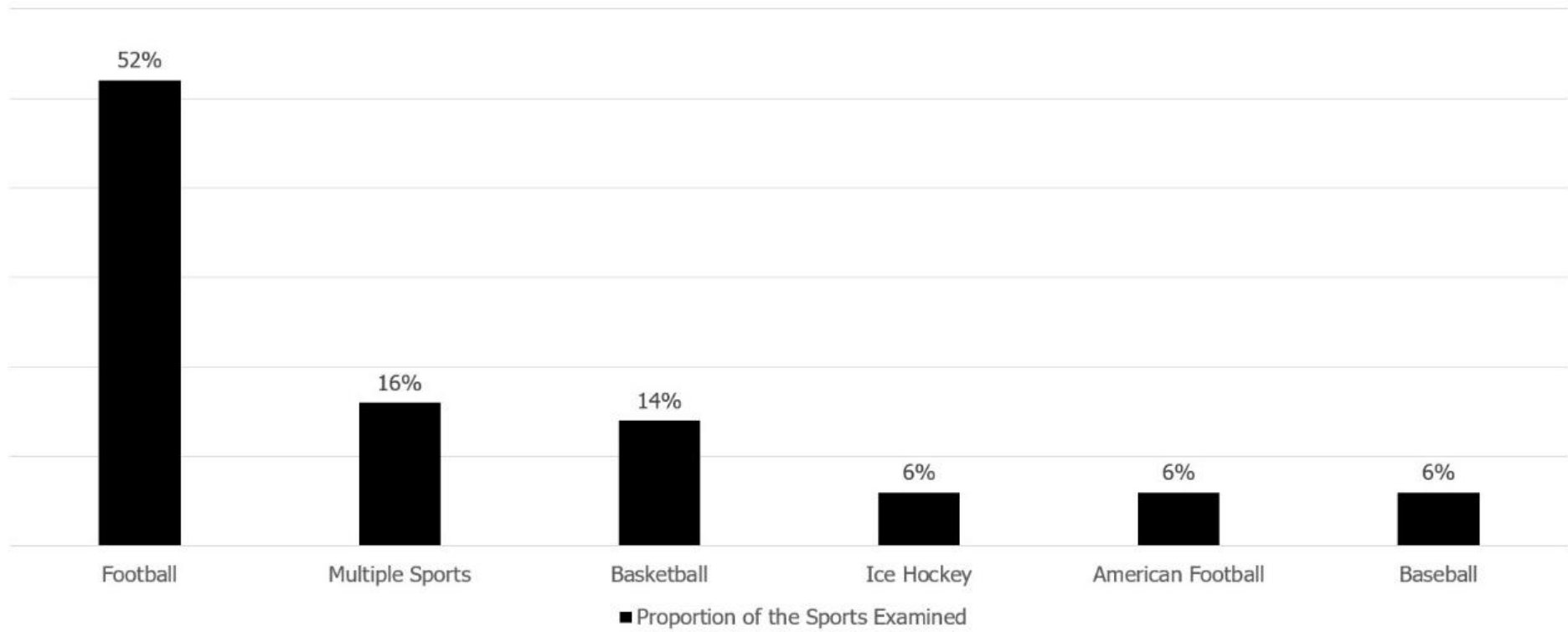
### 8.1.2 Annual Overview of Satellite Fan Segment Publications



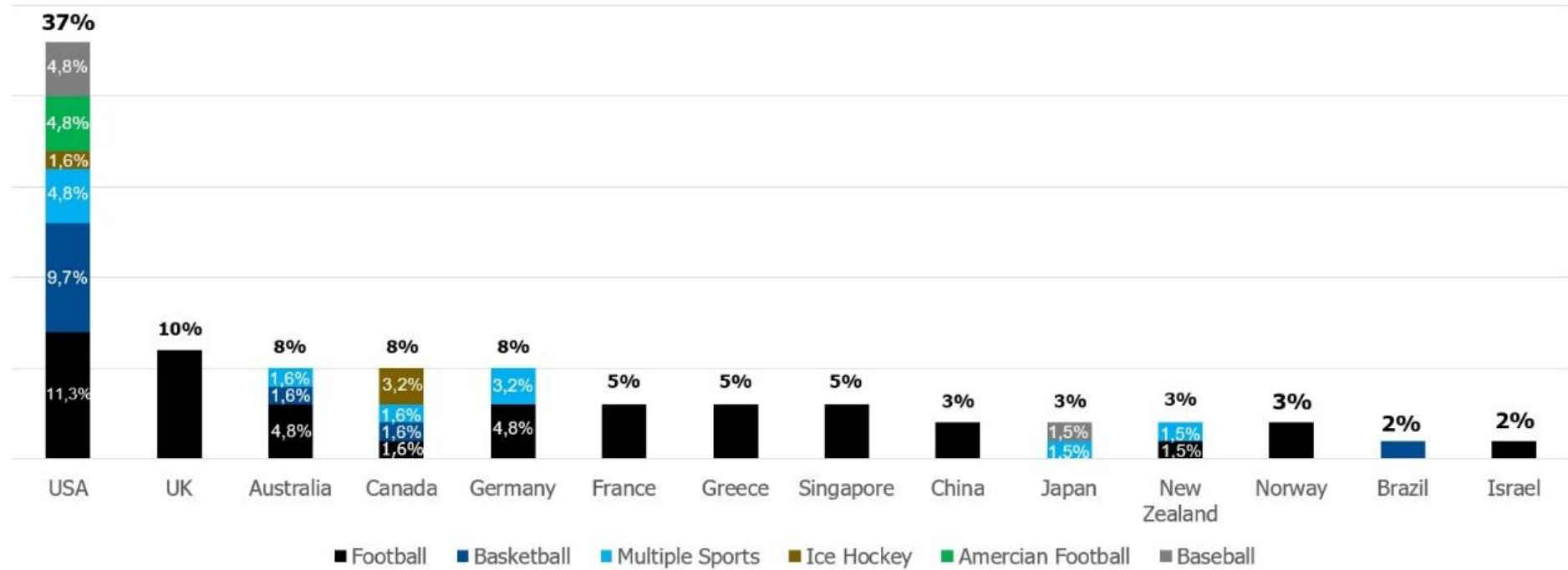
### 8.1.3 Countries of Origin of Satellite Fan Segment Publications



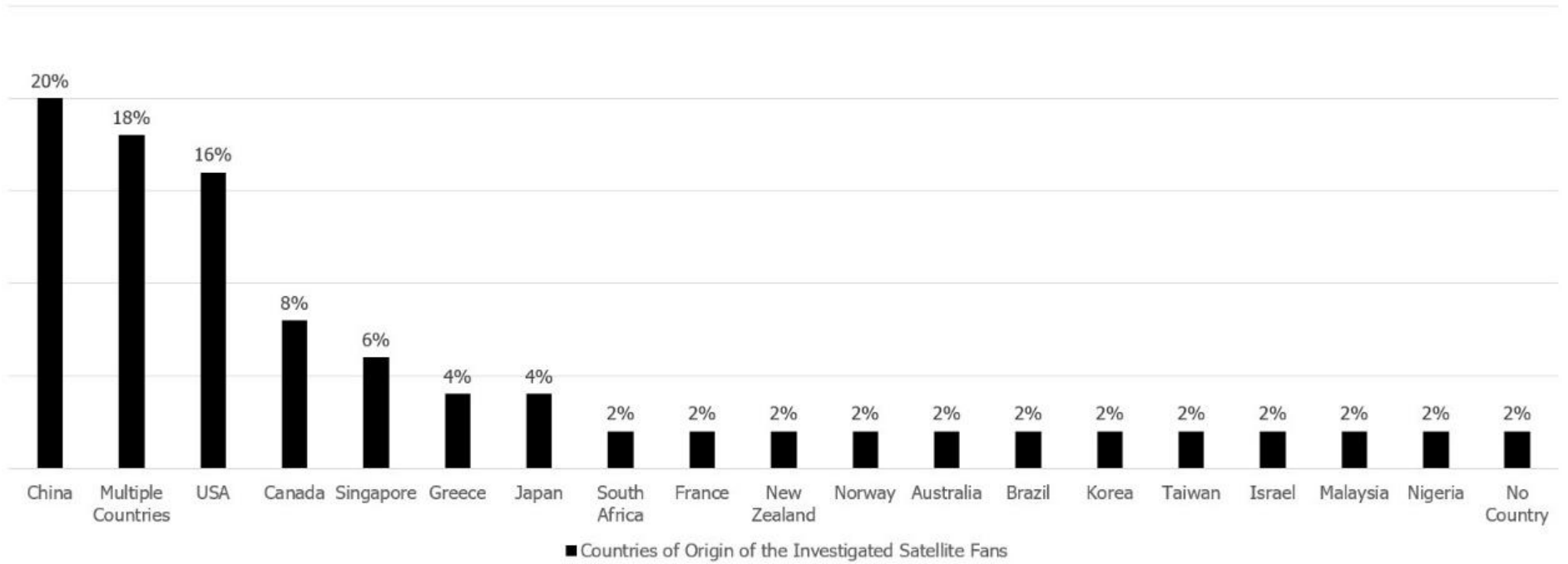
#### 8.1.4 Investigated Sports in Context with the Satellite Fan Segment



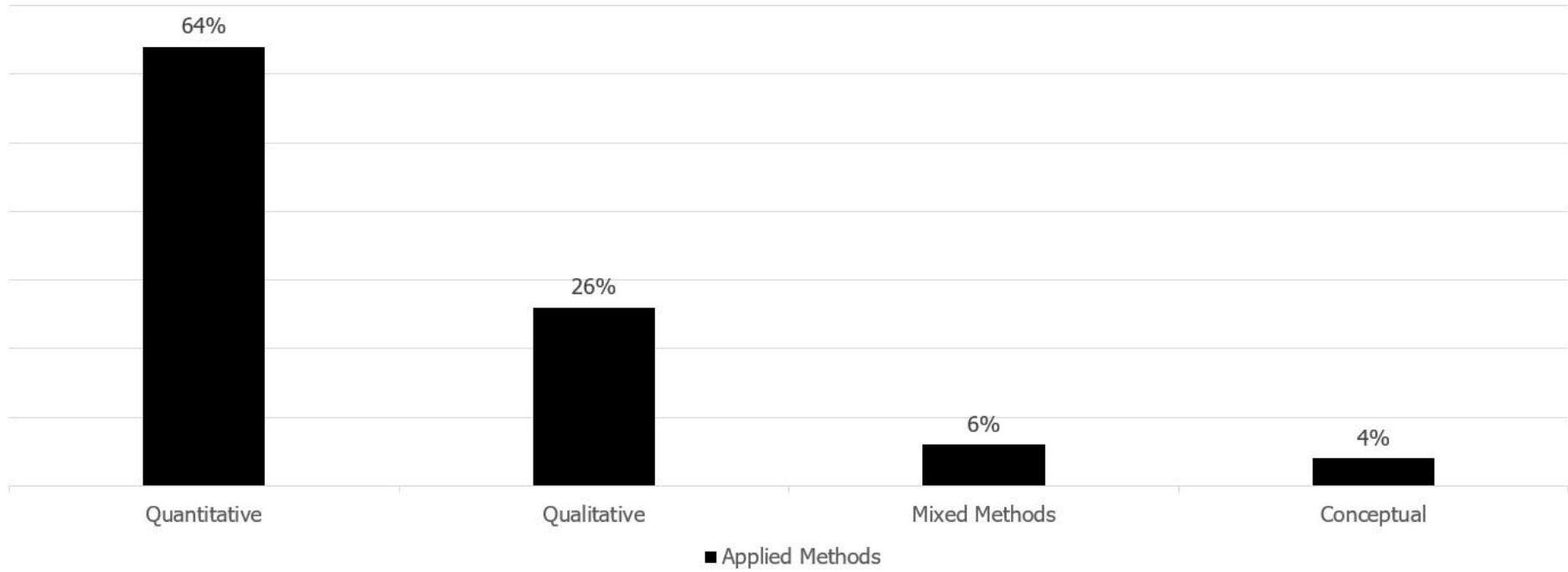
### 8.1.5 Proportion of Sports Investigated per Countries of Origin



### 8.1.6 Countries of Origin of the Investigated Satellite Fans



8.1.7 Applied Methods in Satellite Fan Segment Studies



## 8.2 Research Philosophies in Business and Management

### Research (Saunders et al., 2016, pp. 136-137)

Ontology (nature of reality or being)	Epistemology (what constitutes acceptable knowledge)	Axiology (role of values)	Typical methods
<b>Positivism</b>			
Real, external, independent One true reality (universalism) Granular (things) Ordered	Scientific method Observable and measurable facts Law-like generalisations Numbers Causal explanation and prediction as contribution	Value-free research Researcher is detached, neutral and independent of what is researched Researcher maintains objective stance	Typically deductive, highly structured, large samples, measurement, typically quantitative methods of analysis, but a range of data can be analysed
<b>Critical realism</b>			
Stratified/layered (the empirical, the actual and the real) External, independent Intransient Objective structures Causal mechanisms	Epistemological relativism Knowledge historically situated and transient Facts are social constructions Historical causal explanation as contribution	Value-laden research Researcher acknowledges bias by world views, cultural experience and upbringing Researcher tries to minimise bias and errors Researcher is as objective as possible	Retroductive, in-depth historically situated analysis of pre-existing structures and emerging agency. Range of methods and data types to fit subject matter
<b>Interpretivism</b>			
Complex, rich Socially constructed through culture and language Multiple meanings, interpretations, realities Flux of processes, experiences, practices	Theories and concepts too simplistic Focus on narratives, stories, perceptions and interpretations New understandings and worldviews as contribution	Value-bound research Researchers are part of what is researched, subjective Researcher interpretations key to contribution Researcher reflexive	Typically inductive. Small samples, in-depth investigations, qualitative methods of analysis, but a range of data can be interpreted
<b>Postmodernism</b>			
Nominal Complex, rich Socially constructed through power relations Some meanings, interpretations, realities are dominated and silenced by others Flux of processes, experiences, practices	What counts as 'truth' and 'knowledge' is decided by dominant ideologies Focus on absences, silences and oppressed/repressed meanings, interpretations and voices Exposure of power relations and challenge of dominant views as contribution	Value-constituted research Researcher and research embedded in power relations Some research narratives are repressed and silenced at the expense of others Researcher radically reflexive	Typically deconstructive – reading texts and realities against themselves In-depth investigations of anomalies, silences and absences Range of data types, typically qualitative methods of analysis
<b>Pragmatism</b>			
Complex, rich, external 'Reality' is the practical consequences of ideas Flux of processes, experiences and practices	Practical meaning of knowledge in specific contexts 'True' theories and knowledge are those that enable successful action Focus on problems, practices and relevance Problem solving and informed future practice as contribution	Value-driven research Research initiated and sustained by researcher's doubts and beliefs Researcher reflexive	Following research problem and research question Range of methods: mixed, multiple, qualitative, quantitative, action research Emphasis on practical solutions and outcomes

### 8.3 Overview of the Full Survey in English and German

<b>English</b>	<b>German</b>
<b>Geographically Distant and Local NHL Fans on Instagram</b>	<b>Internationale und lokale NHL-Fans auf Instagram</b>
<p><b><u>Introduction</u></b></p> <p>Project Title: A Comparison of Satellite and Local Sports Fans' Motivations for Social Media Engagement and its Effect on Fan Loyalty</p> <p>Principal Investigator: Valentin Nickolai</p> <p>You are invited to participate in a research survey about the use of social media – in this case Instagram – of National Hockey League (NHL) fans. Sports fans are increasingly using Instagram as a tool to stay connected with their team. In this way not only local fans, but also geographic distant fans can constantly interact with their team and other fans. The purpose of this research is to compare the digital behavior on Instagram and its effect on fan loyalty between local NHL fans and fans who reside geographically distant to their favorite team (Satellite Fans).</p> <p>This survey has been designed to take approximately 5 to 10 minutes. If you would like to receive a summary of the results of this study, you have the option to enter your email address at the end of the survey.</p> <p>The research ethics protocols under which this survey is conducted require that all participants must have reached the age of 18 years.</p> <p>If you would like to take part in this study, please read the statement below and tick 'I agree'. By ticking 'I agree' you also confirm that you are 18 years of age or older.</p> <p>I understand the nature of the study, and what is required from me. I understand that after I participate, I will receive the researcher's contact information and may also receive additional information about the study. I understand I am free to withdraw from the study at any time, without having to give a reason for withdrawing, and without prejudice. I agree to provide information to the investigator and understand that my contribution will remain confidential. I also consent to the retention of this data under the condition that any subsequent use also be restricted to research projects that have gained ethical approval from Northumbria University. I agree to the University of Northumbria at Newcastle and to accadis Hochschule Bad Homburg recording and processing this information about me. I understand that this information will be used only for the purpose set out in the information text supplied to me, and my consent is conditional upon the University complying with its duties and obligations under the Data Protection Act 2018 which incorporates</p>	<p><b><u>Einleitung</u></b></p> <p>Projekttitel: Ein Vergleich der Motivationen für Social-Media-Nutzung von internationalen und lokalen Sportfans und dessen Auswirkung auf die Fan-Loyalität</p> <p>Doktorand: Valentin Nickolai</p> <p>Sie sind eingeladen, an einer Forschungsumfrage über die Nutzung von sozialen Medien - in diesem Fall Instagram - von National Hockey League (NHL) Fans teilzunehmen. Sportfans nutzen Instagram zunehmend als Tool, um mit ihrem Team in Verbindung zu bleiben. Auf diese Weise können nicht nur lokale Fans, sondern auch geografisch weit entfernte Fans ständig mit ihrem Team und anderen Fans interagieren. Das Ziel dieser Untersuchung ist es, das digitale Verhalten auf Instagram und dessen Einfluss auf die Fan-Loyalität zwischen lokalen NHL-Fans und Fans, die geografisch weit entfernt von ihrem Lieblingsteam wohnen, zu vergleichen.</p> <p>Die Umfrage dauert etwa 5 bis 10 Minuten. Wenn Sie eine Zusammenfassung der Ergebnisse dieser Studie erhalten möchten, haben Sie die Möglichkeit, am Ende der Umfrage Ihre E-Mail-Adresse anzugeben.</p> <p>Die forschungsethischen Grundlagen, unter denen diese Umfrage durchgeführt wird, verlangen, dass alle Teilnehmer das Alter von 18 Jahren erreicht haben müssen.</p> <p>Wenn Sie an dieser Studie teilnehmen möchten, lesen Sie bitte die untenstehende Erklärung und kreuzen Sie 'Ich stimme zu' an. Mit dem Ankreuzen von 'Ich stimme zu' bestätigen Sie ebenfalls, dass Sie das 18. Lebensjahr erreicht haben.</p> <p>Ich verstehe die Art der Studie und was von mir verlangt wird. Ich verstehe, dass ich nach meiner Teilnahme die Kontaktdaten des Doktoranden erhalte und auch weitere Informationen über die Studie erhalten kann. Ich verstehe, dass ich jederzeit von der Studie zurücktreten kann, ohne einen Grund für meinen Rücktritt angeben zu müssen und ohne dass mir dadurch Nachteile entstehen. Ich bin damit einverstanden, dem Doktorand Informationen zur Verfügung zu stellen und verstehe, dass mein Beitrag vertraulich behandelt wird. Ich stimme auch der Aufbewahrung dieser Daten unter der Bedingung zu, dass jede spätere Verwendung auf Forschungsprojekte beschränkt wird, die eine ethische Genehmigung der Northumbria Universität erhalten haben. Ich bin</p>



<p>General Data Protection Regulations (GDPR). You can find out more about how we use your information at <a href="#">Privacy Notice</a>.</p> <p>I agree.</p>	<p>damit einverstanden, dass die Northumbria Universität in Newcastle und die accadis Hochschule Bad Homburg diese Daten über mich speichern und verarbeiten. Ich verstehe, dass meine Antworten nur für den Zweck verwendet werden, der in dem mir zur Verfügung gestellten Informationstext angegeben ist, und meine Zustimmung ist an die Bedingung geknüpft, dass die Universität ihre Aufgaben und Verpflichtungen gemäß dem Data Protection Act 2018 erfüllt, der die General Data Protection Regulations (GDPR) beinhaltet. Weitere Informationen darüber, wie wir Ihre Daten verwenden, finden Sie unter <a href="#">GDPR - Privacy Notices (northumbria.ac.uk)</a>.</p> <p>Ich stimme zu.</p>
<p><b><u>NHL Team</u></b></p> <p>Which NHL team are you a fan of? / Which NHL team are you most interested in? (For the rest of the survey please keep in mind that the questions always refer to your favorite team.)</p> <p>Anaheim Ducks  Arizona Coyotes  Boston Bruins  Buffalo Sabres  Calgary Flames  Carolina Hurricanes  Chicago Blackhawks  Colorado Avalanche  Columbus Bue Jackets  Dallas Stars  Detroit Red Wings  Edmonton Oilers  Florida Panthers  Los Angeles Kings  Minnesota Wild  Montreal Canadiens  Nashville Predators  New Jersey Devils  New York Islanders  New York Rangers  Ottawa Senators  Philadelphia Flyers  Pittsburgh Penguins  San Jose Sharks  Seattle Kraken  St. Louis Blues  Tampa Bay Lightning  Toronto Maple Leafs  Vancouver Canucks  Vegas Golden Knights  Washington Capitals  Winnipeg Jets  I have no interest in the NHL. <i>(End of Survey)</i></p>	<p><b><u>NHL-Team</u></b></p> <p>Von welchem NHL-Team sind Sie ein Fan? / Für welches NHL-Team interessieren Sie sich am meisten? (Beachten Sie bitte für die gesamte Umfrage, dass sich die Fragen immer auf Ihr Lieblingsteam beziehen.)</p> <p>Anaheim Ducks  Arizona Coyotes  Boston Bruins  Buffalo Sabres  Calgary Flames  Carolina Hurricanes  Chicago Blackhawks  Colorado Avalanche  Columbus Bue Jackets  Dallas Stars  Detroit Red Wings  Edmonton Oilers  Florida Panthers  Los Angeles Kings  Minnesota Wild  Montreal Canadiens  Nashville Predators  New Jersey Devils  New York Islanders  New York Rangers  Ottawa Senators  Philadelphia Flyers  Pittsburgh Penguins  San Jose Sharks  Seattle Kraken  St. Louis Blues  Tampa Bay Lightning  Toronto Maple Leafs  Vancouver Canucks  Vegas Golden Knights  Washington Capitals  Winnipeg Jets  Ich habe kein Interesse an der NHL.</p>
<p><b><u>Instagram</u></b></p> <p>Do you follow the (official) Instagram account of your team and/or other related accounts (e.g., official NHL account or other hockey related accounts)?</p> <p>Yes, I follow.</p>	<p><b><u>Instagram</u></b></p> <p>Folgen Sie dem offiziellen Instagram-Account Ihres Teams und/oder anderen ähnlichen Accounts (z. B. dem offiziellen NHL-Account oder anderen Eishockey-bezogenen Accounts)?</p> <p>Ja, folge ich.</p>

<p>No, I do not follow. <i>(End of Survey)</i>  No, I do not use Instagram. <i>(End of Survey)</i></p>	<p>Nein, folge ich nicht.  Nein, ich nutze kein Instagram.</p>
<p><b><u>Country</u></b></p> <p>What is your current country of residence?</p> <p>USA  Canada  Germany  Other (If you selected "Other", please specify.)</p>	<p><b><u>Land</u></b></p> <p>In welchem Land wohnen Sie derzeit?</p> <p>Deutschland  USA  Kanada  Sonstiges (Sollten Sie „Sonstiges“ ausgewählt haben, machen Sie bitte nähere Angaben.)</p>
<p><b><u>Geographic distance</u></b></p> <p>How far away from the current home arena of your team do you currently reside? <i>(This question only appears if a participant has previously indicated the USA or Canada as his or her current country of residence.)</i></p> <p>0 – 20 miles (0 – 30 km)  21 – 50 miles (31 – 80 km)  51 – 100 miles (81 – 160 km)  101 – 200 miles (161 – 320 km)  201 – 500 miles (321 – 800 km)  More than 500 miles (800 km)</p>	<p><b><u>Geografische Entfernung</u></b></p> <p>Wie weit entfernt von der aktuellen Heimspielstätte Ihres Teams wohnen Sie derzeit?</p> <p>0 – 30 km (0 – 20 Meilen)  31 – 80 km (21 – 50 Meilen)  81 – 160 km (51 – 100 Meilen)  161 – 320 km (101 – 200 Meilen)  321 – 800 km (201 – 500 Meilen)  Mehr als 800 km (500 Meilen)</p>
<p>Have you previously resided 100 miles (160 km) or closer from the home arena of your team? <i>(This question only appears if a participant has previously indicated that he or her currently resides more than 100 miles away from the home arena of his or her team.)</i></p> <p>Yes  No</p>	<p>Haben Sie schon einmal 160 km (100 Meilen) oder näher von der Heimspielstätte Ihres Teams gewohnt?</p> <p>Ja  Nein</p>
<p><b><u>Reasons for using Instagram</u></b></p> <p>The following statements relate to your reasons why you use Instagram to connect with your NHL team and/or other related accounts as well as other fans.</p> <p>Please indicate for each of the following statements how strongly you agree or disagree with it.</p> <p>Strongly Disagree  Disagree  Somewhat Disagree  Neither Agree nor Disagree  Somewhat Agree  Agree  Strongly Agree</p>	<p><b><u>Gründe und Motivation für die Nutzung von Instagram</u></b></p> <p>Die folgenden Aussagen beziehen sich auf Ihre Gründe bzw. Motivation, warum Sie Instagram nutzen, um mit Ihrem NHL-Team und/oder ähnlichen Accounts sowie anderen Fans in Kontakt zu sein.</p> <p>Bitte geben Sie für jeder folgenden Aussagen an, wie stark Sie dieser zustimmen oder nicht zustimmen.</p> <p>Stimme gar nicht zu  Stimme nicht zu  Stimme eher nicht zu  Neutral  Stimme eher zu  Stimme zu  Stimme voll zu</p>
<p>I like participating in this Instagram community because ...</p> <p>... it is entertaining.  ... the community provides an outlet for me to escape my daily routine.  ... it arouses my emotions and feelings.  ... it relaxes me.</p>	<p>Ich bin gerne ein Teil dieser Instagram-Community, weil ...</p> <p>... es unterhaltsam ist.  ... die Community mir die Möglichkeit bietet, meiner täglichen Routine zu entkommen.  ... dadurch Emotionen und Gefühle in mir geweckt werden.  ... es mich entspannt.</p>

<p>I like participating in this Instagram community because ...</p> <p>... I feel closer to my team.  ... it makes me feel less lonely.  ... it makes me feel more connected to my team.  ... I enjoy texting, discussing, and sharing information with others that also like my team.</p>	<p>Ich bin gerne ein Teil dieser Instagram-Community, weil ...</p> <p>... ich mich dadurch meinem Team näher fühle.  ... ich mich dadurch weniger einsam fühle.  ... ich mich dadurch meinem Team noch mehr verbunden fühle.  ... ich gerne mit anderen Fans meines Teams schreibe, diskutiere und Informationen teile.</p>
<p>I like participating in this Instagram community because ...</p> <p>... I feel very attached to my team.  ... I feel a sense of belonging to my team.  ... I am proud to be a follower of my team.  ... I share the same goals of other followers of my team.</p>	<p>Ich bin gerne ein Teil dieser Instagram-Community, weil ...</p> <p>... ich mich meinem Team sehr verbunden fühle.  ... ich mich meinem Team zugehörig fühle.  ... ich stolz darauf bin, ein Fan meines Teams zu sein.  ... ich die gleichen Ziele wie andere Fans meines Teams teile.</p>
<p>I like participating in this Instagram community because ...</p> <p>... I can get information about team performance, player profiles, events and games scheduled.  ... the sport-related information is useful.  ... it helps me in forming an opinion about my team.  ... I want to know what other people think about my team.</p>	<p>Ich bin gerne ein Teil dieser Instagram-Community, weil ...</p> <p>... ich mich über Teamleistungen, Spielerprofile, Veranstaltungen und geplante Spiele informieren kann.  ... die sportbezogenen Informationen nützlich sind.  ... es mir hilft, mir eine Meinung über mein Team zu bilden.  ... ich wissen möchte, was andere Leute über mein Team denken.</p>
<p>I like participating in this Instagram community because ...</p> <p>... I want to get a better service (e.g., from your team).  ... I am able to obtain information I want without delay.  ... when I want to buy a ticket or merchandise, I use my team's community to search for bargain prices.  ... I can earn discounts, prizes, or money.</p>	<p>Ich bin gerne ein Teil dieser Instagram-Community, weil ...</p> <p>... ich einen besseren Service erhalten möchte (z. B. von Ihrem Team).  ... ich in der Lage bin, die von mir gewünschten Informationen ohne Verzögerung zu erhalten.  ... ich die Community meines Teams nutze, um nach günstigen Preisen zu suchen, wenn ich ein Ticket oder Fanartikel kaufen möchte.  ... ich Rabatte erhalte oder Preise/Geld gewinnen kann.</p>
<p>I like participating in this Instagram community because ...</p> <p>... I feel good about myself when other followers share my ideas and comments.  ... I like receiving more affirmation about my comments.  ... I want to influence the team to do, or to leave something.  ... I want to influence other people.</p>	<p>Ich bin gerne ein Teil dieser Instagram-Community, weil ...</p> <p>... ich mich gut fühle, wenn andere „Follower“ meine Ideen und Kommentare teilen.  ... ich mehr Bestätigung für meine Kommentare erhalten möchte.  ... ich mein Team überzeugen möchte, etwas zu tun oder zu lassen.  ... ich andere Fans von meiner Meinung überzeugen möchte.</p>
<p><b><u>Instagram engagement</u></b></p> <p>The following statements related to your Instagram engagement with your NHL team and/or other related accounts as well as other fans.</p> <p>Please indicate for each of the following statements how strongly you agree or disagree with it.</p> <p>Strongly Disagree  Disagree</p>	<p><b><u>Verhalten auf Instagram</u></b></p> <p>Die folgenden Aussagen beziehen sich auf Ihr Instagram-Verhalten in Verbindung mit Ihrem NHL-Teams und/oder anderen verwandten Accounts sowie anderen Fans.</p> <p>Bitte geben Sie für jede der folgenden Aussagen an, wie stark Sie dieser zustimmen oder nicht.</p> <p>Stimme gar nicht zu  Stimme nicht zu  Stimme eher nicht zu</p>


<p>Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree</p>	<p>Neutral Stimme eher zu Stimme zu Stimme voll zu</p>
<p>On Instagram ...</p> <p>... I follow the account of my team and/or other related accounts. ... I follow hashtags related to my team. ... I view fan accounts related to my team. ... I view pictures, videos or stories related to my team. ... I read posts and comments related to my team.</p>	<p>Auf Instagram ...</p> <p>... folge ich dem Account meines Teams und/oder anderen ähnlichen Accounts. ... folge ich Hashtags, die mit meinem Team zu tun haben. ... sehe ich mir Fan-Accounts zu meinem Team an. ... sehe ich mir Bilder, Videos oder Stories zu meinem Team an. ... lese ich Beiträge und Kommentare über mein Team.</p>
<p>On Instagram ...</p> <p>... I "Like" pictures or videos related to my team. ... I "Like" comments related to my team. ... I engage with stories related to my team. ... I comment on pictures related to my team. ... I comment on videos related to my team. ... I repost pictures, videos or stories related to my team.</p>	<p>Auf Instagram ...</p> <p>... „like“ ich Bilder oder Videos zu meinem Team. ... „like“ ich Kommentare zu meinem Team. ... „reagiere“ ich auf Stories zu meinem Team. ... kommentiere ich Bilder zu meinem Team. ... kommentiere ich Videos zu meinem Team. ... „reposte“ ich Bilder, Videos oder Stories zu meinem Team.</p>
<p>On Instagram ...</p> <p>... I initiate posts related to my team. ... I post pictures related to my team. ... I post videos related to my team. ... I post stories related to my team. ... I post my own created content including my team.</p>	<p>Auf Instagram ...</p> <p>... veröffentliche ich Beiträge zu meinem Team. ... „poste“ ich Bilder zu meinem Team. ... „poste“ ich Videos zu meinem Team. ... „poste“ ich Stories zu meinem Team. ... „poste“ ich meine selbst erstellten Inhalte zu meinem Team.</p>
<p><b><u>Fan support and behavior</u></b></p> <p>The following statements and questions related to how you support your NHL team.</p> <p>Please indicate for each of the following statements how strongly you agree or disagree with it.</p> <p>Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree</p>	<p><b><u>Fanverhalten</u></b></p> <p>Die folgenden Aussagen und Fragen beziehen sich darauf, wie Sie Ihr NHL-Team unterstützen.</p> <p>Bitte geben Sie für jede der folgenden Aussagen an, wie stark Sie dieser zustimmen oder nicht zustimmen.</p> <p>Stimme gar nicht zu Stimme nicht zu Stimme eher nicht zu Neutral Stimme eher zu Stimme zu Stimme voll zu</p>
<p>I would be willing to defend my team publicly, even if it caused controversy. I could never change my affiliation from my team to another professional team. I consider myself a committed fan of my team. I would watch my team regardless of which team they were playing against at the time.</p>	<p>Ich wäre bereit, mein Team öffentlich zu verteidigen, auch wenn das zu Kontroversen führen würde. Ich könnte niemals meine Zugehörigkeit von meinem Team zu einem anderen Profiteam ändern. Ich betrachte mich als überzeugten Fan meines Teams. Ich würde meinem Team immer zusehen, egal gegen welches Team es spielt.</p>
<p>Please indicate for each of the following statements, how often do you ...</p> <p>... watch your team's matches on TV/streaming.</p>	<p>Bitte geben Sie für jede der folgenden Aussagen an, wie oft Sie ...</p> <p>... die Spiele Ihres Teams im Fernsehen/Streaming ansehen.</p>

<p>... consume other team-related media (e.g., magazines, podcasts, or YouTube).  ... wear the colours and/or logo of your team.  ... participate in discussions about your team.  ... purchase team merchandise.  ... purchase products from companies that support your team (e.g., sponsors).</p> <p>1 (Never)  2  3  4  5  6  7 (Very Frequently)</p>	<p>... andere teambezogene Medien konsumieren (z. B. Zeitschriften, Podcasts oder YouTube).  ... die Farben und/oder das Logo Ihres Teams tragen.  ... sich an Diskussionen über Ihr Team beteiligen.  ... Fanartikel Ihres Teams kaufen.  ... Produkte von Unternehmen kaufen, die Ihr Team unterstützen (z. B. Sponsoren).</p> <p>1 (Niemals)  2  3  4  5  6  7 (Sehr Häufig)</p>
<p><b><u>Demographic questions</u></b></p> <p>Please indicate your gender.</p> <p>Male  Female  Other  Prefer not to say</p>	<p><b><u>Demografische Fragen</u></b></p> <p>Bitte geben Sie Ihr Geschlecht an.</p> <p>Männlich  Weiblich  Sonstiges  Möchte ich nicht angeben</p>
<p>How old are you?</p> <p>18 – 25  26 – 35  36 – 45  46 – 55  56 – 65  66 +  Prefer not to say</p>	<p>Wie alt sind Sie?</p> <p>18 – 25  26 – 35  36 – 45  46 – 55  56 – 65  66 +  Möchte ich nicht angeben</p>
<p>What is the highest level of school you have completed or the highest degree you have received?</p> <p>Less than high school degree  High school graduate (high school diploma or equivalent including GED)  Apprenticeship/(Vocational) training  Associate degree (2-year)  Bachelor degree (4-year)  Master degree  Doctoral degree  Professional degree (JD, MD)  Other  Prefer not to say</p>	<p>Welchen höchsten Bildungsabschluss haben Sie erworben?</p> <p>Ohne allgemeinen Schulabschluss  Noch in schulischer Ausbildung  Volks-, Hauptschulabschluss  Mittlere Reife, Realschul- oder gleichwertiger Abschluss  Fachhochschul- oder Hochschulreife (Abitur)  Lehre/Berufsausbildung  Fachschulabschluss  Hochschulabschluss (Bachelor)  Hochschulabschluss (Master, Diplom)  Promotion  Sonstiges  Möchte ich nicht angeben</p>
<p>What is your current employment status? (If more than one option applies to you, please indicate so.)</p> <p>Student/apprenticeship/pupil  Unemployed  Self-employed  Employed part-time  Employed full-time  Retired  Other  Prefer not to say</p>	<p>Wie ist Ihr derzeitiger Beschäftigungsstatus? (Wenn mehr als eine Option auf Sie zutrifft, geben Sie dies bitte an.)</p> <p>Student/Auszubildender/Schüler  Arbeitslos  Selbständig  Teilzeitbeschäftigt  Vollzeitbeschäftigt  Im Ruhestand  Sonstiges  Möchte ich nicht angeben</p>
<p><b><u>Thank you for participating.</u></b></p> <p>If you like to receive a summary of the results of this study, you can leave your email address in the box below.</p>	<p><b><u>Vielen Dank für Ihre Teilnahme.</u></b></p> <p>Wenn Sie eine Zusammenfassung der Ergebnisse dieser Studie erhalten möchten,</p>

<hr/> <p>Thank you for your time and participating in this survey.</p> <p>If you have any further comments or feedback regarding this survey, please use the following contact details:</p> <p>Valentin Nickolai</p> <p>accadis Hochschule Bad Homburg SÜDCAMPUS Bad Homburg Am Weidenring 4 61352 Bad Homburg</p> <p>Tel. +49 6172 9842-0 Email: valentin.nickolai@accadis.net</p>	<p>können Sie Ihre E-Mail-Adresse in dem untenstehenden Feld hinterlassen.</p> <hr/> <p>Vielen Dank für Ihre Zeit und Teilnahme an dieser Umfrage.</p> <p>Wenn Sie weitere Kommentare oder Rückmeldungen zu dieser Umfrage haben, nutzen Sie bitte die folgenden Kontaktdaten:</p> <p>Valentin Nickolai</p> <p>accadis Hochschule Bad Homburg SÜDCAMPUS Bad Homburg Am Weidenring 4 61352 Bad Homburg</p> <p>Tel. +49 6172 9842-0 Email: valentin.nickolai@accadis.net</p>
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## 8.4 Ethical Approval

Research Ethics: Your submission has been approved

 EthicsOnline@Northumbria.ac.uk  
An valentin.nickolai@northumbria.ac.uk  
Cc david.hart@northumbria.ac.uk

17.02.2021

Dear valentin.nickolai,

Submission Ref: 28649

Please note that at the current time, all research projects involving interaction with human participants are required to use remote methods (e.g. videoconferencing) or postpone their research until the University lifts this restriction. Current guidance is available [here](#)

Following independent peer review of the above proposal\*, I am pleased to inform you that **APPROVAL** has been granted on the basis of this proposal and subject to continued compliance with the University policies on ethics, informed consent, and any other policies applicable to your individual research. You should also have current Disclosure & Barring Service (DBS) clearance if your research involves working with children and/or vulnerable adults.

\* note: Staff Low Risk applications are auto-approved without independent peer review.

The University's Policies and Procedures are [here](#)

All researchers must also notify this office of the following:

- Any changes to the study design, by submitting an 'Ethics Amendment Form'
- Any incidents which have an adverse effect on participants, researchers or study outcomes, by submitting an 'Ethical incident Form'
- Any suspension or abandonment of the study.

**Please check your approved proposal for any Approval Conditions upon which approval has been made.**

Use this link to view the submission: [View Submission](#)

Research Ethics Home: [Research Ethics Home](#)

**Please do not reply to this email. This is an unmonitored mailbox. If you are a student, queries should be discussed with your Module Tutor/Supervisor. If you are a member of staff please consult your Department Ethics Lead.**

## 8.5 Comparison of North American and German Education

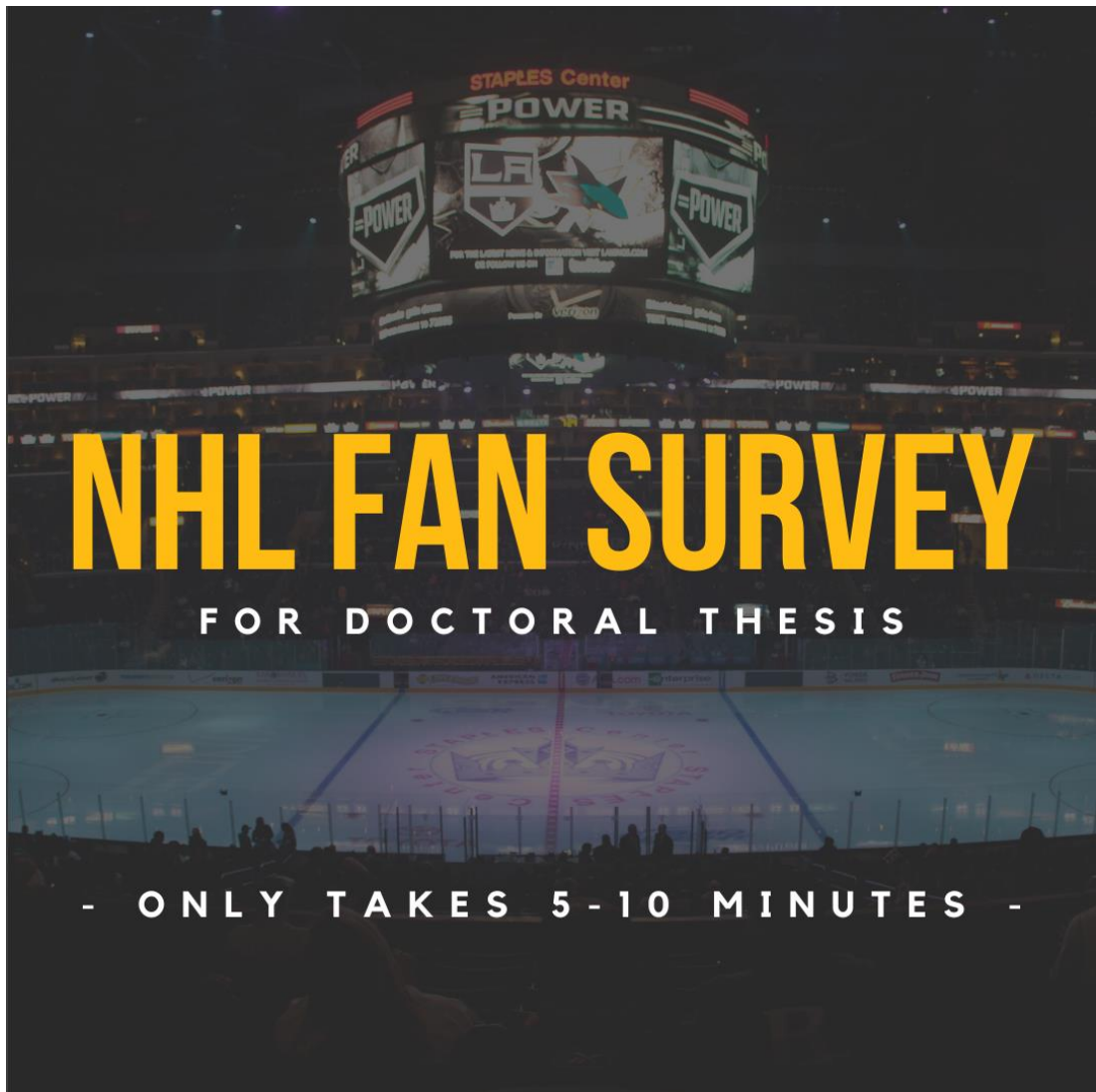
### Levels in Questionnaire

<b>Education Levels in USA and Canada</b>	<b>Education Levels in Germany</b>
<ul style="list-style-type: none"> <li>• Less than high school degree</li> </ul>	<ul style="list-style-type: none"> <li>• Ohne allgemeinen Schulabschluss</li> <li>• Noch in schulischer Ausbildung</li> <li>• Volks-, Hauptschulabschluss</li> <li>• Mittlere Reife, Realschul- oder gleichwertiger Abschluss</li> </ul>
<ul style="list-style-type: none"> <li>• High school graduate (high school diploma or equivalent including GED)</li> </ul>	<ul style="list-style-type: none"> <li>• Fachhochschul- oder Hochschulreife (Abitur)</li> </ul>
<ul style="list-style-type: none"> <li>• Apprenticeship/(Vocational) training</li> </ul>	<ul style="list-style-type: none"> <li>• Lehre/Berufsausbildung</li> </ul>
<ul style="list-style-type: none"> <li>• Associate degree (2-year)</li> </ul>	<ul style="list-style-type: none"> <li>• Fachschulabschluss</li> </ul>
<ul style="list-style-type: none"> <li>• Bachelor degree (4-year)</li> </ul>	<ul style="list-style-type: none"> <li>• Hochschulabschluss (Bachelor)</li> </ul>
<ul style="list-style-type: none"> <li>• Master degree</li> </ul>	<ul style="list-style-type: none"> <li>• Hochschulabschluss (Master, Diplom)</li> </ul>
<ul style="list-style-type: none"> <li>• Doctoral degree</li> <li>• Professional degree (JD, MD)</li> </ul>	<ul style="list-style-type: none"> <li>• Promotion</li> </ul>
<ul style="list-style-type: none"> <li>• Other</li> </ul>	<ul style="list-style-type: none"> <li>• Sonstiges</li> </ul>
<ul style="list-style-type: none"> <li>• Prefer not to say</li> </ul>	<ul style="list-style-type: none"> <li>• Möchte ich nicht angeben</li> </ul>





8.6.2 Instagram and Facebook Image



## 8.7 Sample of Local Fans and Comparison with US NHL Fans, US Population and Canadian Population

	Local fans in this study	US NHL Fans		US population		Canadian population				
<b>Gender</b>										
Male	50.2%	64.5%	(Gough, 2022c)	50.8%	(US Census Bureau, 2021b)	49.7%	(Statista, 2022a)			
Female	48.5%	35.5%		49.2%		50.3%				
Other	0.4%	n.a.		n.a.		n.a.				
<b>Age</b>										
18 - 25	30.5%	18 - 34	36.1%	(Gough, 2022b)	18 - 24	11.7%	(US Census Bureau, 2021b)	18 - 24	10.6%	(Statista, 2022a)
26 - 35	17.8%				25 - 44	34.4%		25 - 44	33.9%	
36 - 45	14.0%	35 - 44	18.3%		45 - 64	32.3%		45 - 64	32.9%	
46 - 55	16.7%	45 - 64	31.9%	65 +	21.7%	65 +	22.8%			
56 - 65	14.8%									
66 +	4.4%	65 +	13.7%							
<b>Education Status</b>										
Less than high school degree	2.5%			n.a.	(US Census Bureau, 2021a)	11.5%	(Statistics Canada, 2017)			
High school graduate	30.7%			27.4%		23.7%				
Apprenticeship   Vocational training	7.6%			n.a.		10.8%				
Associate degree	14.8%			9.9%		25.5%				
Bachelor degree	25.2%			21.7%		28.5%				
Master degree	12.3%			9.3%						
Doctoral   Professional degree	2.1%			3.1%						
Other	2.5%			n.a.		n.a.				
<b>Employment Status</b>										
Student   apprenticeship   pupil	22.7%			7.7%	(NCES, 2021)	7.0%	(Statistics Canada, 2021a)			
Unemployed	4.4%			2.3%	(Bureau of Labor Statistics, 2022a)	4.3%	(Statistics Canada, 2022a)			
Self-employed	7.4%			6.2%	(Kochhar, 2021)	9.4%	(Hansen, 2021, December 24)			
Employed part-time	15.3%			9.9%	(Bureau of Labor Statistics, 2022c, 2022d)	11.3%	(Statistics Canada, 2018)			
Employed full-time	47.0%			49.6%	(Bureau of Labor Statistics, 2022b)	47.6%	(Statistics Canada, 2022b)			
Retired	9.3%			18.1%	(US Social Security Administration, 2021)	21.0%	(Statistics Canada, 2021b)			
Other	3.2%			n.a.		n.a.				
<p>Comment:            Data for US NHL fans, US population and Canadian population are based on calculations from sources indicated and the total population over the age of 18 in each country.            The percentages of the response option "Prefer not to say" of this study is not included in the overview.</p>										

## 8.8 Sample of Satellite Fans and Comparison with German Ice Hockey Fans and German Population

	International satellite fans in this study	German ice hockey fans		German population		
<b>Gender</b>						
Male	79.8%	89%	(Eishockey News, 2020)	48.9%	(Statista, 2021)	
Female	18.9%	11%		51.1%		
Other	0.4%	n.a.		n.a.		
<b>Age</b>						
18 - 25	32.0%	< 20	10%	18 - 24	8.9%	(Statista, 2021)
26 - 35	30.8%	20 - 29	22%	25 - 34	14.8%	
36 - 45	21.5%	30 - 39	32%	35 - 44	15.2%	
46 - 55	13.5%	40 - 49	22%	45 - 54	17.1%	
56 - 65	1.7%	50 - 59	10%	55 - 64	18.2%	
66 +	0.0%	60 +	4%	65 +	25.9%	
<b>Education Status</b>						
Less than high school degree	18.5%	62%	(Eishockey News, 2020)	25.2%	(Statistisches Bundesamt, 2020)	
High school graduate	24.3%	28%		47.1%		
Apprenticeship   Vocational training	21.3%	n.a.		9.3%		
Associate degree	3.2%	10%		2.6%		
Bachelor degree	14.8%			14.7%		
Master degree	14.6%			1.2%		
Doctoral   Professional degree	1.3%			n.a.		
Other	0.6%	n.a.		n.a.		
<b>Employment Status</b>						
Student   apprenticeship   pupil	28.0%	10%	(Eishockey News, 2020)	4.2%	(Statistisches Bundesamt, 2021)	
Unemployed	2.4%	n.a.		4.6%	(Bundesagentur für Arbeit, 2022)	
Self-employed	5.8%	12%		4.9%	(Institut der deutschen Wirtschaft, 2021)	
Employed part-time	6.2%	71%		16.3%	(Trading Economics, 2021)	
Employed full-time	58.1%			42.2%	(Trading Economics, 2021)	
Retired	1.7%	n.a.		30.6%	(Institut Arbeit und Qualifikation, 2021)	
Other	1.1%	7%		n.a.		
Comment: Data for German population are based on calculations from sources indicated and the total German population over the age of 18. The percentages of the response option "Prefer not to say" of this study is not included in the overview.						

