

Football and Environmental Sustainability: An Analysis of Sport Lisboa e Benfica

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Abstract

The sports club is viewed as an open system interacting with both its internal and external environments. The objective of this study is to generate understandings about the social role in sustainable development by the two largest sports clubs based in Lisbon, and with more supporters in Portugal. Based on multiple theoretical frameworks from interrelated theoretical fields such as environmental sustainability- sport context, identity theory and, sport clubs - community sport, a mix methods approach was conducted, informed by empirical material as interviews and survey. The interviews were conducted with sport club directors and environmental assistant and the survey was applied to fans (sample, n = 203). The findings suggest that the voluntary clubs provide branding benefits such as shared reputation and goodwill to participating firms that emanate from their association with the voluntary club brand. The connection between football and the environment is a connection that has much opportunity to be better utilized to create a more environmentally sustainable society.

Keywords: Environmental sustainability; sport identity; sport community; sport clubs;

Introduction

The 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs), adopted by the United Nations (UN) in September 2015, have given a new impetus to global efforts for achieving sustainable development (EU, 2021). They are integrated and indivisible and balance the three dimensions of sustainable development: the economic, social and environmental (UN, 2015). In the same vein, to the European Commission (EC), sustainable development is a core principle of the Treaty on European Union and a priority objective for the Union's internal and external policies (EC, 2020).

Faced with these immense challenges, the involvement of civil society and other stakeholders is critical to achieving the sustainable development goals proposed by the 2030 Agenda both global and regional level. It is impossible to undergo an energy transition without society, without citizens. Not just at the technological level, but also at the behavioural level (Carvalho, Riquito & Ferreira, 2022). The sport industry is not immune to the pressures to engage in environmental sustainability (McCullough & Cunningham, 2010; Wall-Tweedie & Nguyen, 2016), which is why environmentally friendly and sustainability-focused corporate social responsibility practices are part of the modern sports landscape (Casper et al., 2019).

The importance of sport in societies around the world is driven by cultural foundations that allow it to be shaped and shape social issues (Horne 2006), therefore reflects and facilitates social change, both positive and negative. Therefore sports clubs are seen as open systems, which exploit the possibilities and resources of their environment and produce services for environmental consumption. The conceptualization of voluntary environmental programs by clubs that incur costs not required by law has led to the production of positive environmental externalities. In Portugal, sports clubs are seen as an open system, which exploit the possibilities and resources of their environment and produce services for environmental consumption. This perspective, in terms of effectiveness covers many dimensions, the ability of organizations to function must be described in terms of a combination of relevant dimensions.

The conceptual framework used to guide this study drew upon environmental sustainability-sport context; sport studies - clubs and community and identity theory. A case study-based explorative research approach was employed in this inquiry utilizing for investigating questions of environmentally friendly practices associated with the two main Portuguese clubs, based in Lisbon – Sporting Clube Portugal and Sport Lisboa Benfica, because of its suitability for collecting data about context specific phenomena (Guba & Lincoln, 1994) and used to investigate little-known and complex phenomena (Gummesson, 2007).

Given the three key themes of this study (environmental sustainability-sport context; sport studies - clubs and community, and identity theory) the objectives of the study are to provide a comparative overview of the type of environmental sustainability initiatives being undertaken by clubs. Based on the following research questions: How do these two sports clubs engage in environmentally friendly practices. To what extent is environmental consciousness positively associated with fans.

The study is organized as follows: i) presents the main goals of the study and the committed to sustainable development intersections of clubs and fans; ii) provides a current review of the literature, stressing the contribution to the in terms of the inter-relation of the identified dimensions, highlighting this contribution for future articles; iii) providing a characterization of the Clubs engaged in this research; iv) introduces the article's methodology and data collection; v) unpacks club's commitment to sustainable development discussion, illustrated by interview transcripts; vi) unpacks fan's commitment to sustainable development discussion, illustrated by the interpretation of data survey; vii) end up with the conclusions, acknowledges the limitations and opens paths for future research.

Theoretical Framework and Literature Review

Environmental sustainability

The challenge embodied in the concept of sustainable development represents, as Kofi Annan, former Secretary General of the United Nations, noted: "Our biggest challenge in this new century is to take an idea that seems abstract - sustainable development - and turn it into a reality for all the world's people." (UNESCO, 2005).

Historically, in 1968, UNESCO organized the first intergovernmental conference aiming to reconcile environment and development, what we now call 'sustainable development'. The concept has evolved constantly ever since.

It is a simple idea in theory. The collective human race needs to live in a way that ensures the environment on Earth will always be a healthy place for all humans to live. There is an imagined line that crosses between living sustainably and unsustainably. If we stay on the unsustainable side of the line, the earth will eventually not be capable of supporting human life. If we cross over the imagined line of sustainability into the sustainable side, in theory we will be able to live on earth for the foreseen future.

During a class trip to the Azores, a chain of volcanic islands midway between the United States and Portugal, I went for a run on the coast of one of the islands and thought about what it is like living on an island. I was running on a tiny piece of land in the middle of the Atlantic Ocean. The thought scared me. If anything were to happen to cut off supplies from other counties, would we be able to survive on solely what was produced from the island? I then thought about how the Earth is just a much bigger island. Hurling through Space with no help available from anywhere else, we are on an island with limited resources. Things like soil, air, water, and other natural resources sometimes feel as if they are unlimited resources, but when you think of Earth as an island, you realize those resources are all finite. Environmental sustainability is about sources and sinks. With the goal of sustaining global life-support systems indefinitely, environmental sustainability aims to have resources flow from source to sink without a net gain of sink materials. Resources like food, water, air, and energy are provided from sources, we use them, then sinks take the used resources, whether waste or outputs (Goodland, 1995). In a closed system, the outputs of food, water, air, and energy become sources again through various ecological processes. However, because of the rapid increase in consumption of natural resources, our ecological systems have become incapable of dealing with the outputs we create. Of course, this is the simplest depiction of environmental

sustainability; but it is important to start from the simplest idea, to understand the basic idea. In reality, environmental sustainability is much more complicated.

Sustainability is often tied to three branches: environmental, social, and economic (Goodland, 1995). This paper focuses on the branch of environmental sustainability, but it is important to recognize that there are multiple types of sustainability, and certain types have certain levels of importance. As Goodland writes in his paper *The Concept of Environmental Sustainability*, “We do not have time to dream of creating more living space or more environment, such as colonizing the moon or building cities beneath the ocean. We must save the remnants of the only environment we have and allow time for and invest in the regeneration of what we have already damaged. We cannot "grow" into sustainability” (1995). Goodman considers the three types of sustainability and acknowledges that economic growth cannot be a part of environmental sustainability. This idea is especially important for businesses, including professional football clubs, because economic growth is typically a top priority.

Environmental sustainability in sport context

Global industries today are faced with a necessary response to the impacts of climate change, challenges to which the sports sector is not immune. Some authors argue that sports organizations are at a distinct advantage over other industries due to the social influence that sport has than any other industry (Harris, 2014; Pernecky, 2015). According to Harris (2014) the link between sport and sustainable development has only recently begun to be explored by researchers, with Lenskyj (1998) noting that prior to 1998 this association had received little attention in the academic literature. This situation did not change significantly over the following decade (Harris, 2014) the relationship between sport and the environment remains a little-explored area in academic literature (Mallen et al., 2011).

However, in the last decade this panorama has changed. Scholarly literature has stressed that the relationship between sport and the natural environment is bidirectional in nature, suggesting that sport influences the natural environment and vice versa (McCullough, Orr & Kellison, 2020). Particularly through the lens of sports sustainability (Chard & Mallen, 2012; Trendafilova et al., 2014; Kellison & Hong, 2015) also, the corporate social responsibility (Sheth & Babiak, 2009; Hamil & Morrow, 2011; Casper, Pfahl, & McSherry, 2012; Inoue & Kent, 2012) yet also, to exploring the impacts of climate change on the sport industry (Dingle & Stewart, 2018; Orr & Inoue, 2019) and adaptation behaviours of organizations, and fans (Orr & Schneider, 2018).

A paradox exists between the ways sport organizations evaluate their economic impact, compared with their environmental impact. In fact, the very essence of sport has a bidirectional relationship with the natural environment (Trendafilova et al., 2014). On the one hand, sport is dependent on the natural environment for existence, and the long-term well-being of natural resources relies on sustainable consumption. On the other hand, the sports sector is not exempt from the responsibility to address environmental sustainability as among its many sports facilities where stadiums and sports halls that typically consume large amounts of energy and consequently produce indirect carbon emissions (McCullough, Orr & Watanabe, 2020).

This means that sport organizations are also affected by the introduction of carbon certificates and should, therefore, have a natural interest in reducing associated costs (Thormann & Wicker, 2021). One way to reduce such environmentally harmful behaviour and carbon costs is by implementing environmental measures, such as energy-saving installations, solar-energy, water-saving fountains, waste reduction, recycling of products, and reuse of resources. However, cost-saving benefits will not occur immediately, only in the long run, because acquisition costs are usually high (Kellison & Hong, 2015; McCullough, Orr & Watanabe, 2020).

The environmental sustainability is one social cause that has taken root and maintained itself from being an annual reminder or fad, such that it is now engrained into some sport organizations' business cultures (McCullough & Cunningham, 2010). In such a way that the Fédération Internationale de Football Association (FIFA) has been engaging with its stakeholders, with Local Organising Committees, fans and other institutions since the 2006 in 'green goal' program established at the FIFA World Cup 2006, in Germany (Dolles & Söderman, 2010). Subsequently, FIFA enacted environmentally related changes to its headquarters and the Green Goal programme is now a driving force behind the bidding for, planning of, holding of and evaluating of the success of World Cup events (McCullough et al., 2016).

Already in 2016, FIFA joined the UN Climate Change secretariat's initiative Climate Neutral Now, becoming the first international sports organisation to do so. By joining the campaign, FIFA pledged to continue to strive to become greenhouse gas emission-neutral by the mid-21st century, and committed to measuring, reducing and offsetting all of its own greenhouse gas emissions at the 2018 FIFA World Cup Russia (FIFA, 2018). The FIFA World Cup Qatar 2022 Sustainability Strategy includes a comprehensive set of initiatives to mitigate the tournament related emissions, including energy efficient stadiums, low emission transportation, and sustainable waste management practices. Moreover, in order to deliver a fully carbon-neutral event, the remaining unavoidable emissions will be offset (FIFA, 2019).

For its part, European football's governing body UEFA has announced the launch of its innovative Football Sustainability Strategy 2030 – 'Strength through Unity', which will run until 2030. The 'Strength through Unity' concurs with internationally recognised frameworks and standards, including, among others, the UN Sustainable Development Goals, the UN Sports for Climate Action Framework, the European Green Deal, among others (UEFA, 2021).

By committing to the UN-backed 'Race to Zero', UEFA is committing to global goals. In many respects, soccer requires the same skills as other stockholders need to tackle the climate crisis. In particular, UEFA will measure the environmental impact of all its events by 2024; encourage member clubs and associations to measure the impact of domestic competitions; and work towards incorporating climate criteria into UEFA regulations, policies and guidelines. said The UEFA's director of social responsibility, Michele Uva, said: "We have a great responsibility to the millions of footballers and fans, and we feel it all. Our actions and decisions have a huge impact on civil society, and we have to take care of it as an important part of the game of football" (UEFA, 2022).

There is one football team in particular that is leading the group in terms of environmental sustainability: The Forest Green Rovers. Based out of Nailsworth, UK, this team will be playing in the English League One for the 2022/2023 season having just been promoted from League Two. The side is only one of fifteen organizations in the world to have won a United Nations "Momentum for Change" climate action award. The club plays in a stadium completely powered by renewable energy. In 2018, the club became the world's first UN-certified carbon neutral football club (Forest Green Rovers, 2018). This club has proven that football clubs have the capability to be environmentally sustainable.

Identity theory: The role of sport in group relations

In what concerns to the social identity motivations Tajfel & Turner (1979) the first authors that introduced these studies, they emphasis was on intergroup competition over status - groups seek to protect and promote evaluatively positive distinctiveness for their group and its social identity, and thus for its members. Subsequently, an alternative model of social identity motivation emerged - optimal distinctiveness theory. According to Brewer (1991), people are motivated by two conflicting motives, for inclusion/friendship (satisfied by group membership) and for distinctiveness/uniqueness (satisfied by individuality). Social identity phenomena and

group behaviours are affected by the fact that people try to find a balance between these two motives to achieve optimal distinctiveness. When people feel too distinct, they strive for greater inclusion, when people feel too involved in the group, they strive for greater distinctiveness.

The literature on fan identity with sports teams in general, focuses primarily upon the behavioural consequences of fan identification (Hogg et al., 2017). The excitement generated from sport often elicits immediate and highly engaged emotions in fans that are strong and memorable (Madrigal, 1995) for which reason the sports clubs is viewed as an open system interacting with both its internal and external environments. An externality implies that clubs do not fully internalize the costs and benefits of their actions.

Fan identity leads to engagement in communities, although there are different notions of community (Hamil & Morrow, 2011). In the physical environment, Bale (2000) distinguishes between the urban community in which the club is located and the smaller community in which the club is sited, made up of the people and businesses proximate to the stadium. It therefore consists of two interrelated and often overlapping dimensions (Morrow, 1999). First, a direct community of supporters and, secondly, a wider notion encompassing people and groups who can be affected either directly or indirectly by the existence and operation of a football club within a particular space, usually geographical, but also potentially social.

Understanding fan engagement with any issue, let alone environmental issues, is a complex issue with many interconnected elements. However, the importance of socialisation and its effect on consumer behaviour, suggests on the one hand, that certain values assumed by clubs shape fans' attitudes, and beliefs. On the other hand, that fan engagement initiatives are key in corporate social responsibility oriented environmental work.

As fans begin to understand and to adopt environmental values and behaviours within their overall lives, sport organization personnel can utilize their social position to influence environmental issues and behaviours via sport (Rettie et al., 2012). Casper et al. (2012) point out that there is a need to understand the influence fan identification and sustainability values have on fan segments to the individual level.

The environment cannot speak for itself. It cannot articulate thoughts, beliefs, or opinions. Rather, it is represented in the values and actions of individuals and groups, whose actions are enabled and constrained due to personal agendas, biases, and contextual elements (Etzion, 2007). However, as fans begin to understand and adopt environmental values and behaviours within their overall lives, sports organization personnel can utilize their social position to influence environmental issues and behaviours via sport (Rettie et al., 2012), sports can be a unifying tool to drive climate awareness and action among citizens. Casper et al. (2012) point out that there is a need to understand the influence fan identification and sustainability values have on fan segments to the individual level.

Club - Study Setting and Context

Sport Lisboa Benfica (SLB) is a Portuguese club with the motto shared values are 'E Pluribus Unum', and an eagle as a symbol. Since the club's formation, Benfica had always played on rented pitches, the Club's first stadium, located in the Benfica neighbourhood, was symbolically inaugurated on 1 December 1954 and had a capacity of approximately 120,000 attendance, being at the time the largest stadium in Europe and the third largest in the world. Demolition of the stadium began in 2002 to make way for the new Luz stadium, built immediately southwest of the old one. The SL Benfica's new stadium was on 25 October 2003 with a match between Benfica and Uruguayan side Club Nacional (2-1). Officially named Sport Lisboa e Benfica Stadium, it was built to provide Benfica with a new and modern home, and to serve as the playing venue for the Euro 2004 final. UEFA awards the '5 Star' certificate to the 63,000 covered seats stadium. In 2014, the stadium hosted the Champions League final between Real Madrid and Atletico Madrid (4-1).

In the same way that the SCP Academy is the pillar of player training, SLB also has in its Benfica Campus the centre of all football activities, located in the municipality of Seixal, outskirts of Lisbon and on the southern bank of the river Tagus. In September 2006 was the official inauguration date of the Club's Training Center and Youth Academy. Benfica Campus tries to conciliate the comfort of a house with the functionality and flexibility of a working place. Technical areas, like the gym, recovering rooms, massages, swimming pool and other areas dedicated to studying time and leisure are also a part of this modern complex. This facility is also valued by the integration of an administrative services building, a professional football department and youth academy and another one exclusive for the Press professionals who follow the club. Benfica Campus has been gradually growing since its inauguration, being considered as 'Academy of the Year', in December 2015 (SLB, official site).

Methodology

This study used a mixed research method that combines elements of quantitative research and qualitative research to answer our research questions. The use of triangulation helps ensure the overall reliability and validity of the data collected - it is considered imperative.

Data collection

The data collection process incorporated semi-structured Interviews. These interviews were conducted in the first week of May 2022. Letters were written to each club's Chief Executive, requesting an interview either with themselves or with another individual with responsibility of the club's sustainable environmental practice. The interviews, conducted by the author lasted about one hour and were audio recorded. These interviews had several purposes. Recognizing that factors such as club ownership structure size could provide more descriptive details about their sustainable involvement. Particularly on the following issues:

- sustainability strategy - projects in which they are or will be involved in the near future with stakeholders;
- environmental solutions:
 - i) water and sanitation - Water conservation (watering the lawn); Waste prevention and minimization;
 - ii) energy - Energy conservation and use of renewable energy sources - renewable energy.

The interview with representatives from S.L. Benfica took place on May 5th via Microsoft Teams, an online video conference platform. The interviewees were David Gaspar and Olivia Alves. Gaspar is the current Environmental Assistant and Alves is the current Environmental Specialist. The interview was in English. It lasted forty-five minutes. The interview was semi-structured and recorded. A written transcript of the interview was typed and valuable quotations are included in the report.

Another aspect of the methodology used for this report was a guided tour of the S.L. Benfica stadium. This tour was given by David Gaspar, the Environmental Assistant. The environmental sustainability initiatives discussed in the interview were described and shown by Gaspar, as well as a tour of the football pitch.

The study is also based on data from a quantitative survey 'football and environmental sustainability'. The study received 203 responses, with no repeat responses from the same person. The purpose of this survey is to examine fans' perceptions of values and standards and initiatives related to clubs' environmental sustainability. There was also a section for survey participants who did not identify as fans. These people got two questions regarding their opinion on if football clubs in Portugal have the power to influence their fans to act in a more environmentally sustainable manner and their likelihood of becoming fans of a club if they

increased environmental sustainability. The survey began with three questions regarding demographic items, including gender, age and education level of the respondents; The self-reported environmental sustainability importance was assessed with the following question: How important is environmental sustainability to you? And then, a question about club identification; the following five questions intent to measure environmental sustainability opinions and perceptions using a 10-point Likert scale. An online code available can be used to directly access to the survey link, at: <https://forms.gle/eVgnY7xXecntkaWH7>. The survey was shared on social networks from 1 to 8 May 2022. Consequently, the main theoretical areas that have emerged from the literature are brought together to address the contextual challenges of this study. To accomplish this, the following research hypotheses were generated to guide the study (outlined below):

Hypothesis 1: There is a relationship between sociographic data and supporters' higher or lower desire for involvement in environmental sustainability;

Hypothesis 2: There is a positive relationship between club support and commitment to greater environmental sustainability;

Hypothesis 3: There is a positive relationship between the perceived benefits of the club's environmentally sustainable initiatives and the commitment to pay more for tickets;

Hypothesis 4: There is a relationship between the environmental awareness of fans by the influences of sustainable attitudes practiced by clubs.

Hypothesis 5: Non-supporters believe that football clubs in Portugal have the ability to influence their fans to become more sustainable.

Hypothesis 6: Non-supporters would be willing to start supporting a football club if that club increased their environmental sustainability.

Survey Results

Age

In total, the survey created for this report received 203 responses. A majority of responses were from people between the ages of eighteen and twenty-four (76.8%), the second most responses came from individuals aged twenty-five to thirty-four (10.8%), and the third most responses came from people under the age of eighteen (7.4%).

Gender

Of the 203 responses, 130 individuals identified as female (64%), 71 identified as male (35%), and two identified as non-binary (1%).

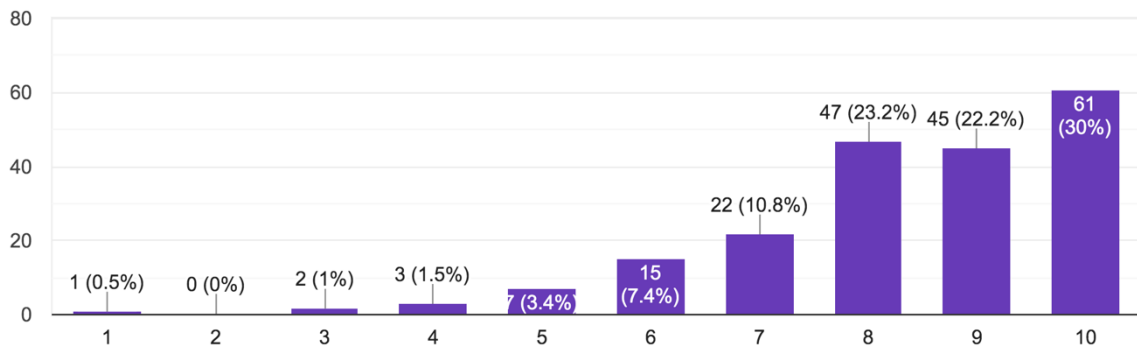
Level of Education

Of the 200 responses for level of education, 132 individuals responded that they are currently in college/university (66%), 29 individuals responded that they are in secondary school (year 7-12) (14.5%), 21 individuals have completed college/university (10.5%), 13 are currently in further study after college/university (6.5%), and 5 are in vocational/trade school (2.5%).

How important is environmental sustainability to you?

How important is environmental sustainability to you?

203 responses

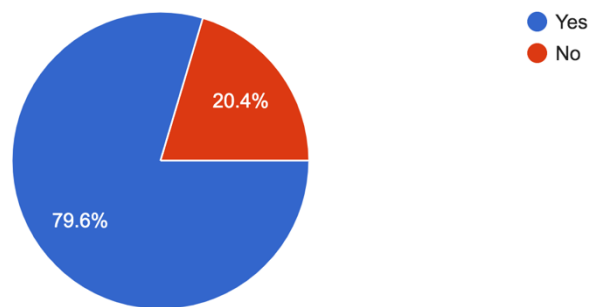


This question could be answered on a scale of 1-10 with ten being extremely important and 1 being not at all important. In response to the question, “How important is environmental sustainability to you?”, 61 individuals responded with a 10 (30%), 45 responded with a 9 (22%), 47 responded with an 8 (23.2%), 22 responded with a 7 (10.8%), 15 responded with a 6 (7.4%), 7 responded with a 5 (3.4%), 3 responded with a 4 (1.5%), 2 responded with a 3 (1%), and 1 responded with a 1 (0.5%).

Do you support a football club in Portugal?

Do you support a football club in Portugal?

201 responses



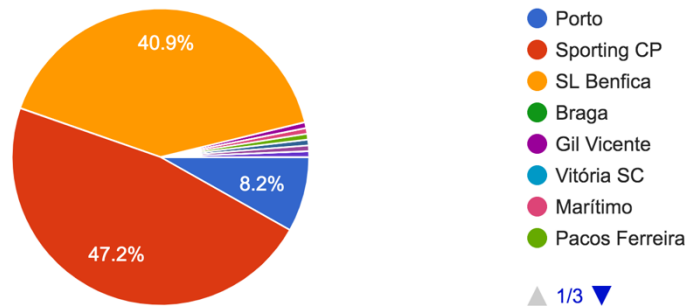
160 individuals responded with a “yes” (79.6%) and 41 responded with a “no” (20.4%).

Questions for Individuals who support a football team in Portugal

Which club do you support?

Which club do you support?

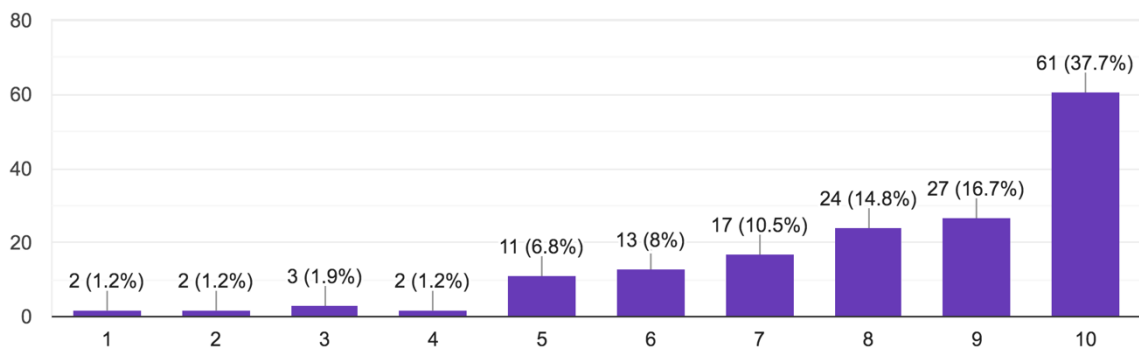
159 responses



There were 159 responses for this question. 75 individuals selected Sporting CP (47.2%), 65 selected SL Benfica (40.9%), 13 individuals selected F.C. Porto (8.2%), and the rest of the teams in the Portuguese football league combined for 11.9% of the votes.

**Rate your agreement to this statement (1=Strongly Disagree, 10=Strongly Agree):
I want my club to be more environmentally sustainable.**

Rate your agreement to this statement: I want my club to be more environmentally sustainable.
162 responses

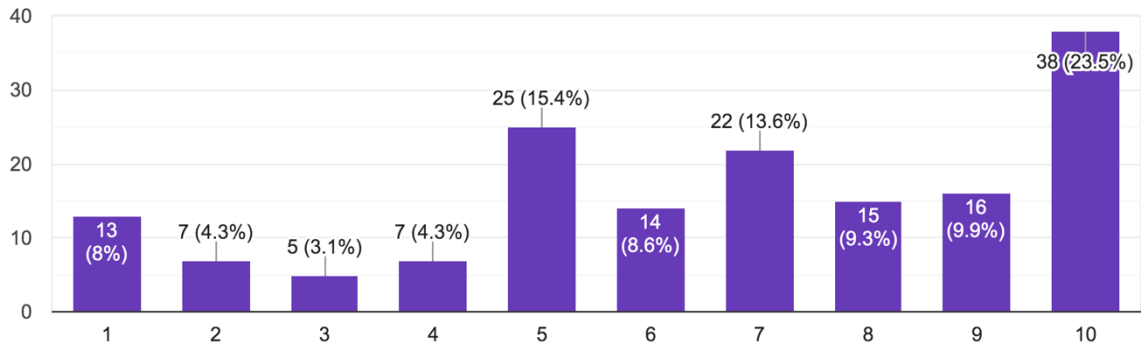


61 individuals responded with a 10 (37.7%), 27 responded with a 9 (16.7%), 24 responded with an 8 (14.8%), 17 responded with a 7 (10.5%), 13 responded with a 6 (8%), 11 responded with a 5 (6.8%), 2 responded with a 4 (1.2%), 3 responded with a 3 (1.9%), 2 responded with a 2 (1.2%), and 2 responded with a 1 (1.2%).

I would support my club more if they become more environmentally sustainable.

Rate your agreement to this statement: I would support my club more if they become more environmentally sustainable.

162 responses

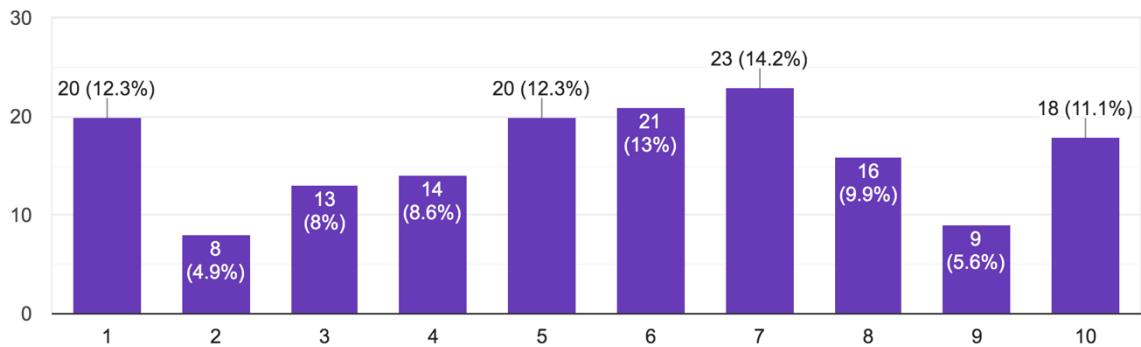


38 individuals responded with a 10 (23.5%), 16 responded with a 9 (9.9%), 15 responded with an 8 (9.3%), 22 responded with a 7 (13.6%), 14 responded with a 6 (8.6%), 25 responded with a 5 (15.4%), 7 responded with a 4 (4.3%), 5 responded with a 3 (3.1%), 7 responded with a 2 (4.3%), and 13 responded with a 1 (8%).

I would pay more money for tickets if my club invested in more environmentally sustainable initiatives.

Rate your agreement to this statement: I would pay more money for tickets if my club invested in more environmentally sustainable initiatives.

162 responses

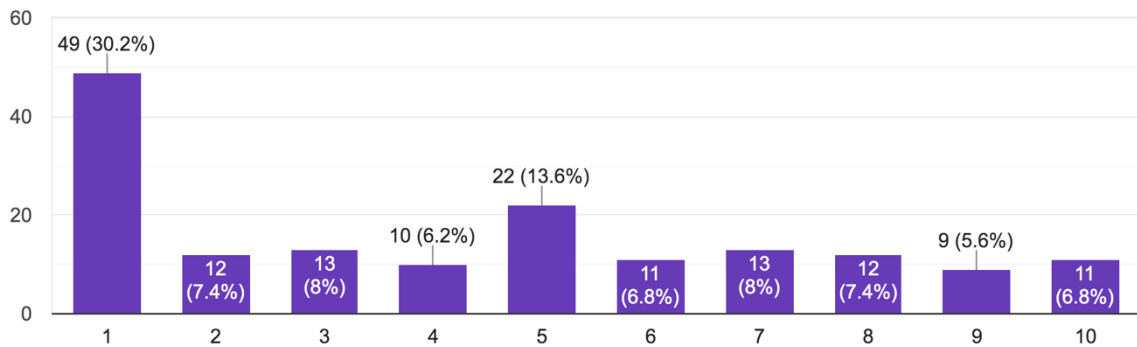


18 individuals responded with a 10 (11.1%), 9 responded with a 9 (5.6%), 16 responded with an 8 (9.9%), 23 responded with a 7 (14.2%), 21 responded with a 6 (13%), 20 responded with a 5 (12.3%), 14 responded with a 4 (8.6%), 13 responded with a 3 (8%), 8 responded with a 2 (4.9%), and 20 responded with a 1 (12.3%).

I have been influenced to act in a more environmentally conscious manner because of the club I support.

Rate your agreement to this statement: I have been influenced to act in a more environmentally-conscious manner because of the club I support.

162 responses

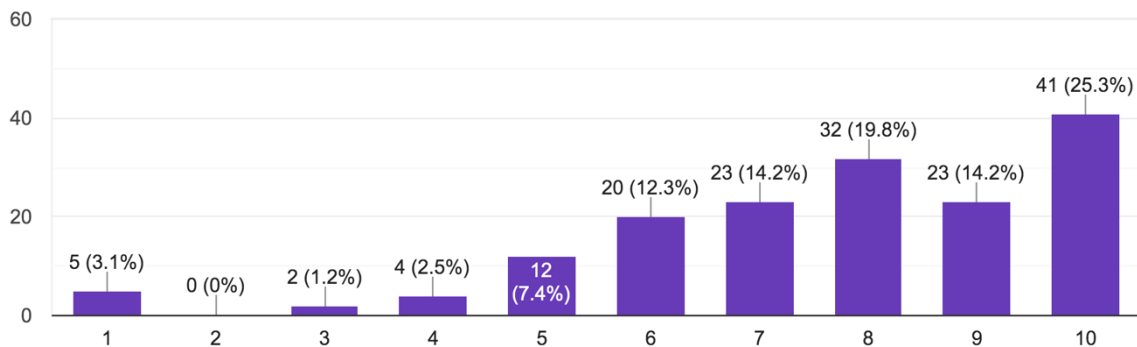


11 individuals responded with a 10 (6.8%), 9 responded with a 9 (5.6%), 12 responded with an 8 (7.4%), 13 responded with a 7 (8%), 11 responded with a 6 (6.8%), 22 responded with a 5 (13.6%), 10 responded with a 4 (6.2%), 13 responded with a 3 (8%), 12 responded with a 2 (7.4%), and 49 responded with a 1 (30.2%).

My club has the power to improve the environmental practices of the fans.

Rate your agreement to this statement: My club has the power to improve the environmental practices of the fans.

162 responses



41 individuals responded with a 10 (25.3%), 23 responded with a 9 (14.2%), 32 responded with an 8 (19.8%), 23 responded with a 7 (14.2%), 20 responded with a 6 (12.3%), 12 responded with a 5 (7.4%), 4 responded with a 4 (2.5%), 2 responded with a 3 (1.2%), 0 responded with a 2 (0%), and 5 responded with a 1 (3.1%).

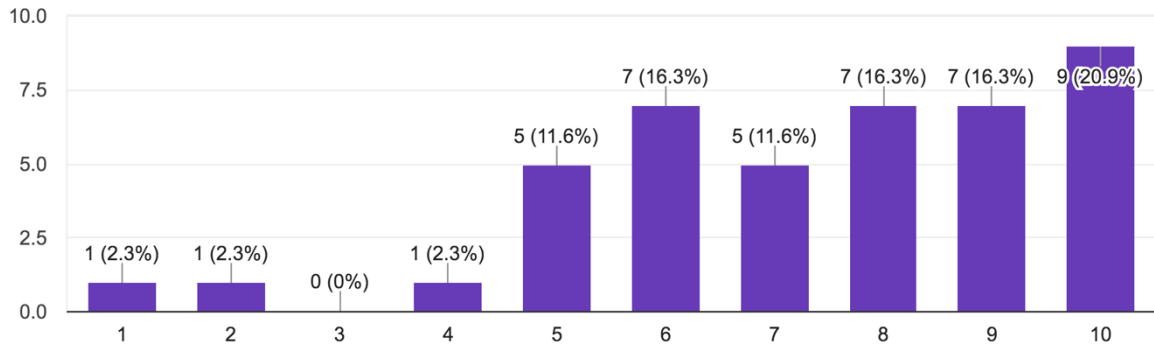
Questions for individuals who do not support a football club in Portugal:

Rate your agreement to this statement:

Football clubs in Portugal have the power to influence their fans to act in an environmentally sustainable manner.

Rate your agreement to this statement: Football clubs in Portugal have the power to influence their fans to act in an environmentally sustainable manner.

43 responses

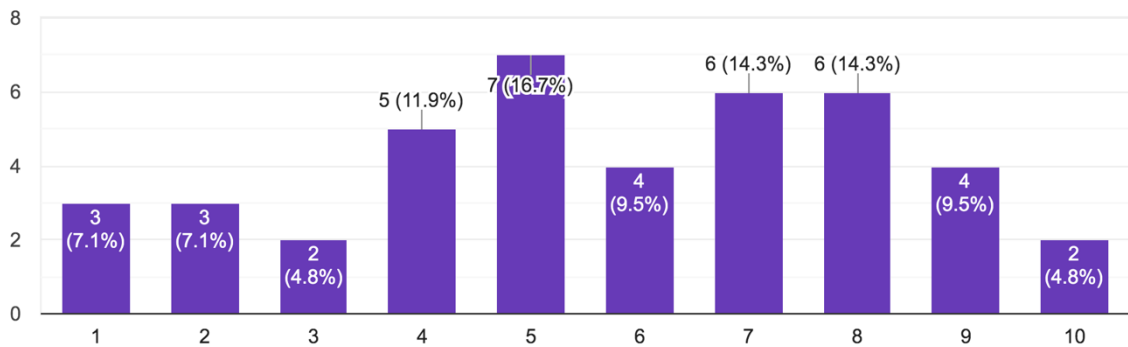


9 individuals responded with a 10 (20.9%), 7 responded with a 9 (16.3%), 7 responded with an 8 (16.3%), 5 responded with a 7 (11.6%), 7 responded with a 6 (16.3%), 5 responded with a 5 (11.6%), 1 responded with a 4 (2.3%), 0 responded with a 3 (0%), 1 responded with a 2 (2.3%), and 1 responded with a 1 (2.3%).

I would be inclined to start supporting a football club if they invested in environmentally sustainable initiatives.

Rate your agreement to this statement: I would be inclined to start supporting a football club if they invested in environmentally sustainable initiatives.

42 responses



2 individuals responded with a 10 (4.8%), 4 responded with a 9 (9.5%), 6 responded with an 8 (14.3%), 6 responded with a 7 (14.3%), 4 responded with a 6 (9.5%), 7 responded with a 5 (16.7%), 5 responded with a 4 (11.9%), 2 responded with a 3 (4.8%), 3 responded with a 2 (7.1%), and 3 responded with a 1 (7.1%).

SL Benfica Interview

The main goal during the interview with Alves and Gaspar was to gain an understanding of the environmental initiatives currently happening at the club as well as what they have planned for the future. All environmental sustainability initiatives at the club are overlooked and managed by EcoBenfica, a branch of the club that focuses on environmental

impact. There are no public documents available that describe in detail the environmental initiatives, even after they were requested during the interview. Because of this, no data or statistics are available to evaluate the environmental sustainability of the club. However, a detailed description of the initiatives currently in operation at the club were given:

- Electric vehicle chargers in the parking lot outside the stadium.
- Solar panels on top of the museum outside the stadium.
- Waste system throughout the Benfica Campus that organizes into three categories: waste, glass, and organic waste.
- Water collection from the stadium.

In regards to the electric vehicle chargers, Alves discussed the placement of the chargers and the types of chargers. They have multiple types of electric car chargers, as well as the first “super-fast” charger in the Lisbon area. Seven chargers exist at the stadium and four exist at the separate Benfica Campus. These chargers are open to the public and are free to use.

Limited information was given on the solar panels on top of the museum. In regards to the solar panels Alves stated, “We produce energy, we do not sell this energy. We use the energy that we produce, as well as heat water with these solar panels.”

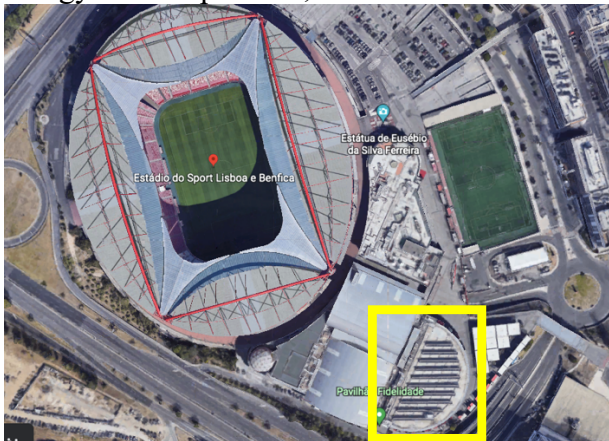


Figure 1 Aerial view of Estádio do Sport Lisboa e Benfica. The yellow rectangle shows the solar panels.

Concerning the waste system, there are bins located throughout the facilities with three categories to choose: waste, glass, and organic waste. At all of the desks in the facility, there are bins for paper. Alves said, “We receive all the garbage that is produced at the complex, it goes in separate bags, but however, we have working tables where technicians confirm if everything is separated correctly; so we send everything to our partner.”

The water collection system at the stadium was not explained in terms of how it works, but the uses of the water collected was described. The rainwater collected from the stadium is used to wash the seats. There is also a groundwater collection system that is used to water the grass of all nine fields owned by Benfica.

For the future, Benfica plans on getting their stadium facilities certified. Alves stated, “Our legislation is becoming more and more strict with this kind of certifications. In the next few years we will have to have the stadium certified regarding the energy, and probably regarding the water management also. Our biggest project for the upcoming years is to certify the facilities.” Certifying the facilities was clearly the main goal for Benfica in the future. When asked what exactly certifying the facilities means, their response did not answer the question asked.

Throughout the interview with Alves and Gaspar, the effects of the COVID-19 pandemic on environmental sustainability initiatives within the club was brought up repeatedly. This report is not about the effects of the pandemic on football operations in terms of environmental sustainability, but it is important to note that the challenge of this time

period on sustainable development. Because part of this report deals with fan perception of environmental sustainability, the fact that fans were missing for many months certainly was a hindrance. When asked, “What role do you think the fans play in the environmental sustainability of the club?” Alves responded with, “We don’t have an opinion because all the projects that were planned to be carried with our fans those were the ones that had to be on hold with the pandemic; so now we are trying to implement these projects beginning next season, so we will see.” It will be interesting to see how Alves, Gaspar, and the EcoBenfica team continue to make S.L. Benfica more environmentally sustainable in the future as the pandemic hopefully releases its grip on society.

Discussion

Survey

To make conclusions based off the survey ‘football and environmental sustainability’, six hypotheses were created:

Hypothesis 1: There is a relationship between sociographic data and supporters' higher or lower desire for involvement in environmental sustainability;

Hypothesis 2: There is a positive relationship between club support and commitment to greater environmental sustainability;

Hypothesis 3: There is a positive relationship between the perceived benefits of the club's environmentally sustainable initiatives and the commitment to pay more for tickets;

Hypothesis 4: There is a relationship between the environmental awareness of fans by the influences of sustainable attitudes practiced by clubs.

Hypothesis 5: Non-supporters believe that football clubs in Portugal have the ability to influence their fans to become more sustainable.

Hypothesis 6: Non-supporters would be willing to start supporting a football club if that club increased their environmental sustainability.

For Hypothesis 1, the question of how important environmental sustainability is to you was compared with the sociographic data. The average answer for each category was recorded and compared. To determine how important environmental sustainability is for the respondents, they answered on a scale between 1-10, with 10 being extremely important and 1 being no important. Overall, no large differences were seen.

For gender, the average answer for females was 8.32, the average answer for males was 8.30, and the average answer for non-binary people was 5. However, the non-binary category only had two responses, so the answer is an outlier.

For age, there were no large differences in answers. The average answer for all categories was between 8.2 and 8.36.

For level of education, there were no large differences. All averages fell within 8.2 and 8.41.

For Hypothesis 2, a comparison between average level of importance of environmental sustainability and whether or not the respondent supports a club was compared. There were no large differences in the results. Club supporters had an average answer of 8.29 while non-supporters had an average answer of 8.32.

For Hypothesis 3, the average answer was compared between the respondents who answered an eight or above to the question “Rate your agreement to this statement: I would support my club more if they become more environmentally sustainable.” With the respondents that answered with three or less to the same question. This way, the correlation between support of a club because of their environmentally sustainable initiatives and whether that fan would pay more for tickets is compared. The findings show a positive correlation between the two

categories. For respondents who submitted that they would likely support their club more if they became more environmentally sustainable (8-10), the average answer on how likely they would spend more money on tickets was a 7.10. For respondents who submitted that they would not support their club more if the club became more environmentally sustainable (1-3), the average answer on how likely they would spend more money on tickets was 2.56. That is a large difference in answers, which shows that fans who care more about their club having environmentally sustainable initiatives are more willing to pay higher ticket prices for it.

For the question “How important is environmental sustainability to you?”, respondents who answered eight or higher feel that environmental sustainability is important while respondents who answered with a three or lower feel that environmental sustainability is not important to them. For Hypothesis 4, a relationship between how important environmental sustainability is and whether the respondent’s club influenced them to act in a more environmentally conscious manner was not determined. Of the respondents that think environmental sustainability is important (8-10), the average score for the latter category was 4.55. Of the respondents who do not think environmental sustainability is important, the average score for the latter category was 3.00. These results conclude that respondents who think environmental sustainability is important did not learn this from their football club that they support. It is undetermined, however, whether the football club had any environmentally sustainable initiatives in the first place. Just because there is no relationship between these two categories does not mean clubs cannot influence their fans to be more environmentally conscious. Further studies would need to be done to evaluate the effectiveness of environmental initiatives and education on fan behavior.

The last two hypotheses, 5 and 6, are about the opinions of the respondents who submitted that they did not support a football team in Portugal. Hypothesis 5 states that non-supporters believe that football clubs in Portugal have the ability to influence their fans to become more sustainable. The average answer for this question was a 7.4. However, the true sentiment of non-supporters could be higher than a 7.4 because there were multiple scores of 1 that dropped the average. The median was 8, which shows a slightly higher likelihood of non-supporters believing football clubs can influence their fans to become more sustainable. Hypothesis 6 states that non-supporters would be willing to start supporting a football club if that club increased their environmental sustainability. The average answer for this question was 5.71. Not very convincing. However, like Hypothesis 5, the median for Hypothesis 6 is slightly higher (6). Overall, there wasn’t convincing evidence to show that either of these hypotheses are true. In conclusion, environmentally sustainable initiatives by football clubs will have more success influencing current fans, rather than bringing in new fans.

Conclusions

By committing to the UN-backed ‘Race to Zero’, UEFA is committing to global goals. In many respects, football requires the same skills as other stockholders need to tackle the climate crisis. In particular, UEFA will measure the environmental impact of all its events by 2024; encourage member clubs and associations to measure the impact of domestic competitions; and work towards incorporating climate criteria into UEFA regulations, policies, and guidelines. The UEFA's director of social responsibility, Michele Uva, said “We have a great responsibility to the millions of footballers and fans, and we feel it all. Our actions and decisions have a huge impact on civil society, and we have to take care of it as an important part of the game of football” (UEFA, 2022)."

It is assumed that the measures taken by the S.L. Benfica are in line with UEFA and therefore FIFA guidelines, so they are voluntary. This indicates that there is not much effort to engage with fans through sustainability measures, but rather to become eligible for recognition by the international organisations that manage football. We found no evidence in the measures

supported by the club to support the influence process of promoting beneficial environmental sustainability behaviour among its supporters. Although the effects of the pandemic COVID 19 and the absence of stadium attendance have delayed the process. The literature is suggesting that sport influences the natural environment and vice versa, however the club's actions do not resonate with the fans' responses to the survey. The club's relationship with sustainability management is relatively tenuous. Despite the growing recognition and importance of its role in relation to environmental sustainability, it is still unclear what its role is in relation to environmental action and what is currently being done. The results suggest that there are several ways in which sport managers can better leverage their sustainability initiatives to increase fan participation and promote sustainable behaviour behaviours among their fans.

Football in Portugal represents a societal dialogue. This is sometimes a mirror of societal issues, for this reason it can be used as a unifying tool to drive climate awareness and action among global citizens. To belong to a club is to be a part of an identity and this causes many emotions. These emotions may relate to club pride, fan identity, or a feeling of environmental responsibility. In case the clubs create green motives, emotions can trigger people to take part in the green movement before the event.

This study contributes a survey that gives data on the feelings of fans on football and the environment, an interview with staff at S.L. Benfica, and a comprehensive literature review to provide context for both. Most importantly, however, this study seeks to bring together parts of the human spirit and use it for good. Passion is a part of football in Portugal, and it is desperately needed in order for our society to become more environmentally sustainable. Football clubs have massive influence in society, and it is possible for this power to be used for more than just entertainment.

Limitations of the Study

The major limitation of this study is the short amount of time it was completed in. With more time, multiple aspects of the study could be strengthened. With more time, studies of more clubs could be added and compared with S.L. Benfica. Having more clubs to compare would give a more accurate picture of the current environmental initiatives present at football clubs in Portugal or even Europe. Secondly, more time would have enabled more people to take the survey. More survey respondents would make the survey more accurate to the current attitude of football clubs and sustainability in Portugal. The survey was limited to mostly college students in the Campo Grande area of Lisbon. Lastly, more time would have let us interview with Sporting CP and enabled a comparison between S.L. Benfica and Sporting C.P. Another limitation of this study was a lack of data on the effectiveness of environmental initiatives at S.L. Benfica. Quantitative data on the electric car chargers, solar panels, waste system, and water collection system would certainly bolster this study.

Recommendations for Further Study

For further study, we believe it will be necessary to study the evolution of the measures implemented so far by the studied clubs, from a longitudinal perspective. In addition, it is necessary to expand the sample. Furthermore, it is necessary to extend the sample, at least to clubs in the Portuguese league with stadiums UEFA attribute the '5 Stars' Certificate. Additionally, further study on the policies of football governing bodies and their environmental policies would be relevant to this study. Lastly, a study on individual player influence on fans' commitment to environmental practices would be interesting.

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