



The Role of Environmental Sustainability in Football Clubs: Driving Profitability through Eco-Friendly Practices

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ABSTRACT

Title: The Role of Environmental Sustainability in Football Clubs: Driving Profitability through Eco-Friendly Practices

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This study explores the integration of environmental sustainability initiatives within football clubs, focusing on their financial implications, including cost reductions, enhanced sponsorship opportunities, and the impact on fan engagement.

Through 10 in-depth interviews with main stakeholders in German professional football, comprising club sustainability department employees, stadium managers, industry experts, and fans, this research uncovers several key findings. The results reveal that many clubs are increasingly prioritizing sustainability, particularly in areas such as renewable energy adoption, waste reduction, water conservation, and sustainable fan mobility. These initiatives are found to reduce operational costs, especially through energy savings. Furthermore, sustainability has become a key factor in attracting new sponsors and forming long-term partnerships. However, despite growing appreciation for sustainability among fans, the research indicates that such initiatives do not directly influence fan attendance or loyalty.

The study highlights the importance of data-driven approaches to evaluate the effectiveness and financial impact of sustainability measures. It also emphasizes the need for clubs to integrate sustainability into their communication strategies and focus on transparency, authenticity, and regional partnerships to effectively engage stakeholders.

Ultimately, this research contributes to a deeper understanding of how football clubs can align their environmental responsibilities with their financial goals, offering actionable insights for future sustainability efforts within the sector.

Keywords: Sustainable Practices in Football Clubs, Financial Impact of Sustainability, Renewable Energy, Fan Mobility, Waste Reduction, Green Sponsorship, Fan Engagement

RESUMO

Título: O papel da sustentabilidade ambiental nos clubes de futebol: Impulsionar a Rentabilidade através de Práticas Ecológicas

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Este estudo explora a integração de iniciativas de sustentabilidade ambiental nos clubes de futebol, centrando-se nas suas implicações financeiras, incluindo reduções de custos, melhores oportunidades de patrocínio e o impacto no envolvimento dos adeptos.

Através de 10 entrevistas aprofundadas com os principais intervenientes no futebol profissional alemão, incluindo funcionários do departamento de sustentabilidade dos clubes, gestores de estádios, especialistas do sector e adeptos, esta investigação revela várias conclusões importantes. Os resultados revelam que muitos clubes estão a dar cada vez mais prioridade à sustentabilidade, particularmente em áreas como a adoção de energias renováveis, a redução de resíduos, a conservação da água e a mobilidade sustentável dos adeptos. Verifica-se que estas iniciativas reduzem os custos operacionais, especialmente através da poupança de energia. Além disso, a sustentabilidade tornou-se um fator-chave para atrair novos patrocinadores e formar parcerias a longo prazo. No entanto, apesar do crescente apreço dos adeptos pela sustentabilidade, a investigação indica que essas iniciativas não influenciam diretamente a assistência ou a fidelidade dos adeptos. O estudo destaca a importância de abordagens baseadas em dados para avaliar a eficácia e o impacto financeiro das medidas de sustentabilidade. Salienta também a necessidade de os clubes integrarem a sustentabilidade nas suas estratégias de comunicação e de se concentrarem na transparência, autenticidade e parcerias regionais para envolverem eficazmente as partes interessadas.

Em última análise, esta investigação contribui para uma compreensão mais profunda da forma como os clubes de futebol podem alinhar as suas responsabilidades ambientais com os seus objectivos financeiros, oferecendo perspectivas práticas para futuros esforços de sustentabilidade no sector.

Palavras-chave: Práticas Sustentáveis em Clubes de Futebol, Impacto Financeiro da Sustentabilidade, Energias Renováveis, Mobilidade dos Adeptos, Redução de Resíduos, Patrocínio Verde, Envolvimento dos Adeptos

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The completion of this dissertation not only marks the end of a significant academic journey but also a deeply personal endeavour as it combines two great interests: sustainability and football. I am convinced that sport is not just a pastime but also has immense potential for social change.

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LIST OF ABBREVIATIONS

CSR	Corporate Social Responsibility
ESG	Environmental Social Governance
DGNB	Deutsche Gesellschaft für Nachhaltiges Bauen
FIFA	Fédération Internationale de Football Association
UEFA	Union of European Football Associations
UNFCCC	United Nations Framework Convention on Climate Change
EMAS	Eco-Management and Audit Scheme

1. Introduction

"Sports organizations can display climate leadership by engaging together in the climate neutrality journey. They can achieve this by taking responsibility for their climate footprint, which in turn will incentivize climate action beyond the sports sector, helping global ambition step up in the face of the threat posed by climate change." This statement by the United Nations Framework Convention on Climate Change (UNFCCC) in its *Sports for Climate Action Initiative* highlights the growing importance of sustainability in the world of sport. With an estimated 3.5 billion fans worldwide (Zeppenfeld, 2024) and an annual turnover of 19.6 billion USD generated by the five biggest football leagues in Europe alone (Bocksch, 2024), football stands as the most influential sport in the world, both economically and in terms of its social impact. Despite this immense popularity, professional football has increasingly faced a crisis of legitimacy, largely driven by issues such as human rights violations associated with the World Cup in Qatar, allegations of corruption within FIFA, controversial sponsorship deals such as FC Bayern's partnership with Qatar Airways, and the environmentally damaging carbon footprint of major sporting events (Death, 2011). Football has begun to respond to this crisis by acknowledging its responsibility and actively addressing sustainability challenges.

However, in a sector that has always focused on maximising profitability, the integration of sustainability is still seen as secondary in most cases, and profitability continues to take centre stage (Raimo et al, 2021). As Milton Friedman famously stated, 'The social responsibility of business is to increase its profits' (Friedman, 1970, p. 1), highlighting the traditional prioritization of profit maximization over broader societal and environmental considerations. Meanwhile, contemporary frameworks such as the *Triple Bottom Line* (Elkington, 1994), *Stakeholder Theory* (Freeman, 1984) or *Corporate Social Innovation* (Saka-Helmhout et al., 2024) challenge this traditional mindset. These concepts emphasise an integrated approach that reconciles profitability and sustainability and shows that taking environmental and social concerns into account can increase economic performance and ensure long-term success.

The aim of this study is to relate this to professional football and confirm the premise that sustainability initiatives from football clubs are not only an ethical investment but can also contribute to profitability. This thesis focuses on football clubs in Germany and examines how the introduction of sustainability measures affects financial performance. By analyzing the intersection of sustainability and profitability, it aims to answer important questions such as

how environmentally friendly practices can reduce operating costs, attract new sponsorship opportunities, and improve fan loyalty.

2. Literature Review

The growing significance of sustainability in modern society has led to an increasing focus on the role of sports organizations, particularly football clubs, in contributing to sustainable development. This literature review examines the existing body of research on sustainability in football, with a specific focus on environmental sustainability. While corporate social responsibility (CSR) in sport has been widely studied, this review narrows in on how football clubs integrate environmental practices into their operations and the subsequent impact these initiatives have on both the environment and profitability. The review will cover the evolution of sustainability efforts in football, the pressure from stakeholders to adopt sustainable practices, and the financial benefits that clubs can realize through these initiatives. By understanding these dynamics, this part of the study aims to contribute to the wider discourse on the intersection of sustainability and financial growth in the football industry and provide a basis for further research.

2.1 Sustainability in Football

Football has always been more than just a game; it acts as a bridge between diverse social groups, creating shared spaces where communities can connect. Whether through active participation or passive viewership, football clubs bring together individuals from various social backgrounds (Cayolla et al., 2022). Their influence extends beyond entertainment, positioning football clubs as social leaders that strengthen communities and drive positive social change (Ludwig & Fundel, 2019; Kim et al., 2018).

In recognition of this influence, the United Nations' 2030 Agenda for Sustainable Development identified sport as a key enabler of sustainability (Hugaerts et al., 2021). Football clubs, due to their diverse and extensive network of stakeholders, including fans, sponsors, local communities, and governing bodies are under increasing pressure to improve their operational impact (Kuźbik, 2017). As global environmental challenges intensify, football clubs have begun to acknowledge their responsibility in contributing to sustainability efforts.

However, progress in this area has been slow. Sotiriadou and Hill (2015) emphasized the need for further research to drive behavioral change within sports organizations. Hugaerts et al. (2021), in *Sustainability in Participatory Sports Events*, found that while many sports organizations prioritize educating stakeholders about sustainability issues and promoting

environmentally friendly practices, few are taking concrete actions to implement these practices. They highlighted the lack of tools to measure, evaluate, and report sustainability initiatives, which is crucial for driving long-term improvements in the sector. Due to this, football continues to contribute significantly to climate change. Key sources of environmental impact include stadium energy consumption, waste generation, and CO₂ emissions associated with fan travel (Mabon, 2022). For instance, the travel of Bundesliga fans during the 2018/19 season resulted in approximately 369,765.2 tonnes of CO₂-e, with 70% of emissions stemming from car traffic (Loewen & Wicker, 2021). To put this into perspective, a return flight from New York to London emits around 1 tonne of CO₂ per passenger. Therefore, the total emissions from fan travel would be equivalent to the CO₂ emissions of around 369,765 return flights between New York and London (ChatGPT, 2024).

On match days, a single stadium can consume between 15,000 and 25,000 kWh of electricity, enough to power a family of four for an entire year (Dederichs, 2022). Additionally, in the 2012/13 season, lower league football clubs in England generated 30.1 million kg of waste, leading to 2.1 million kg of CO₂e emissions (Dosumu et al., 2014). These examples illustrate just a portion of a football club's overall environmental footprint.

Nevertheless, awareness of environmentally sustainable behavior in football is on the rise. In this context, sustainability refers to practices that seek to minimize environmental impact, promote resource conservation, and ensure that sports organizations operate in a manner that is ecologically responsible and socially equitable. In December 2018, the UNFCCC launched the 'Sports for Climate Action' framework, which aims to unite sports organizations, teams, athletes, and fans in a coordinated effort to meet the goals of the Paris Agreement (UNFCCC, 2018). To date, over 280 sports organizations, including UEFA and FIFA, have joined the initiative. Additionally, the European Commission has encouraged football clubs to participate in the *Eco-Management and Audit Scheme* (EMAS), which helps clubs better understand and assess their overall environmental impact, while establishing structured programs aimed at reducing this footprint (European Commission, 2024).

2.2 The Importance of Environmental Sustainability for Football Clubs

Why is it so crucial for football clubs to respond to sustainability trends? Stakeholder theory offers valuable insights (Freeman, 1984). This theory suggests that an organization's success is directly tied to how well it meets the needs and expectations of its stakeholders. Freeman emphasizes the importance of managing relationships with various stakeholders through a

holistic approach that prioritizes long-term value creation over short-term profits. While this requires additional effort, effective stakeholder management can offer a competitive advantage by reducing risks such as negative publicity, reputational damage, or loss of legitimacy (Stieb, 2009).

The pressure on football clubs to adopt sustainable practices comes from various sources. Governmental organizations such as the UNFCCC have launched initiatives such as the above-mentioned Sports for Climate Action Framework, which call on sports organizations to reduce their carbon footprint and engage in climate action. Additionally, non-governmental standards like ISO 20121 for sustainable event management and LEED (Leadership in Energy and Environmental Design) certification provide environmental design criteria specifically tailored to stadiums and training centers, further compelling sports organizations to take meaningful action (Daddi et al.). Umbrella organizations such as the Bundesliga have included the topic of sustainability in their licensing guidelines and place importance on ecological, economic, and social factors (DFL e.V. (2024)). In addition, sponsors are increasingly seeking partnerships with clubs that are committed to sustainability, which further increases the need for environmentally friendly practices (Ludwig & Fundel, 2019). One emerging trend is also the increasing demand from fans for sport organizations to adopt more sustainable practices. According to research from Walker and Kent (2009), fans' perceptions of corporate social responsibility, including environmental initiatives, significantly influence their support for a club.

This highlights that, alongside pressure from external organizations, consumer, and sponsor behavior, as well as the broader trend toward sustainability, it is becoming increasingly important for football clubs to align with these developments.

2.3 The Impact of Sustainable Initiatives on Football Club Profitability

Traditionally, football clubs have focused primarily on profit, with limited attention to social and environmental goals (Raimo et al, 2021). However, in view of the legitimization crisis already highlighted, they are increasingly being forced to pursue strategies for sustainable development and to incorporate environmental sustainability and social responsibility into their core activities (Hugaerts et al., 2021).

But do clubs need to view economic success and sustainability as separate, or can these initiatives be harmonized to benefit both the environment and the financial health of a club? This is where the Triple Bottom Line (TBL) theory becomes crucial. The TBL framework,

introduced by Elkington (1994), suggests that organizations can and should balance three dimensions: social, environmental, and economic outcomes.

Rather than seeing these areas as conflicting, Zaiane and Ellouze (2023) emphasizes that pursuing social and environmental goals can enhance a company's financial performance.

In the article *Fans' Perceptions of Pro-Ecological Sustainability Initiatives in Sport and the Triple Bottom Line*, the authors applied the TBL theory to the sports context, providing some first evidence that football clubs can not only reduce their environmental footprint but also reap significant economic benefits through the implementation of pro-environmental initiatives.

And indeed, there is further literature suggesting that environmental sustainability efforts can have both direct and indirect effects on the financial health of a football club. As Trail and McCullough (2020) note, such initiatives not only contribute to the achievement of social goals but also strengthen the economic outcomes of sports organizations.

The article *The Adoption and Diffusion of Pro-Environmental Stadium Design*, (Kellison & Hong, 2015) explore how eco-friendly stadium concepts are being embraced and the factors driving their adoption in the sports industry. One of the key benefits identified in the conducted interviews was long-term cost savings, which arise from tax credits, reduced utility costs, and extended facility lifecycles. This aligns with the principles of Eco-Efficiency Theory, which suggests that businesses can simultaneously reduce environmental impact while increasing financial performance by improving resource efficiency (Caiado et al., 2017).

Other perceived incentives include the positive publicity the organization receives. As one respondent of the previously mentioned study noted, "most of the cost benefits are long-term investments, but when mixed with... public relations, owners can realize short-term benefits as well" (Kellison & Hong, 2015). Additionally, green initiatives can attract new sponsorships from companies looking to align with environmentally responsible organizations, bringing in incremental revenue and opening opportunities for community partnerships and industry attention. As stated in one of the interviews, some clubs have already achieved short-term financial gains through improved public relations and increasing revenues from 'green sponsors' (Kellison & Hong, 2015). This thesis is further supported by the study "*Grassroots Football Club Stakeholders' Sponsorship: The Role of Happiness and Shared Values*," which highlights the critical role of 'shared values' in a company's decision to engage in sponsorship agreements with clubs (Hindmarsh et. al, 2024). The interviews conducted as part of Hindmarsh's study revealed that it is essential for companies to fully understand the club's vision and assess whether a long-term, mutually beneficial partnership can be established. Cayolla et. al (2023) investigated how fans perceive the environmentally friendly sustainability

initiatives of a professional football club, FC Porto, and what impact these perceptions have on fan behavior and the overall benefits of the club. The study found that fans who viewed the club's environmental initiatives positively were more likely to engage in sustainable behaviors, such as reducing water and energy consumption, recycling and buying environmentally conscious products. These behaviors extended beyond the stadium into their daily lives. In addition, these fans were more likely to attend games, buy merchandise and recommend the club, ultimately leading to economic benefits for FC Porto (Cayolla et al., 2023).

A study on Portuguese sports clubs reached similar conclusions, demonstrating that CSR initiatives have a positive impact on fans' perceptions and attitudes toward sports clubs. Fans who are aware of their club's CSR activities are more likely to feel proud of the club and actively support it through word-of-mouth on online platforms. Additionally, the study found that a positive perception of CSR significantly strengthens fans' identification with the club (Tavares et al., 2022). Another concrete example from literature is the Forever Green CSR program of Real Betis Balompié, a Spanish first division club. In their study, Gema Lobillo and colleagues (2024) examined the impact of the program and concluded that it had significantly improved the club's image and fostered a sense of pride among fans.

2.4 Research question

In reviewing the existing literature, a considerable amount of research has already been done on CSR in sport, with some particularly concerning environmental sustainability in football. Many studies focus on the social benefits that these initiatives provide, while some have also begun to examine their economic benefits. In chapter 2.3, three primary financial benefits that sustainability initiatives can bring to football clubs were identified: 1. Cost-savings through energy efficiency, 2. Attracting new sponsors, and 3. Enhancing brand image, which subsequently boosts fan loyalty.

However, there remains a gap in understanding whether sustainability efforts actually bring financial benefits to football clubs and, if so, how these benefits are realized. To contribute to the existing body of knowledge and promote the further integration of sustainability into football club operations, this study aims to answer the following research question:

How do football clubs leverage environmental sustainability initiatives to enhance profitability?

To explore this relationship in more depth, the following sub-questions will be addressed:

1. *What specific sustainability initiatives have football clubs implemented?*

→ This question seeks to identify the specific sustainability initiatives that football clubs have implemented, establishing a foundational understanding of the measures in place and their relevance. As outlined in 2.3, these initiatives range from pro-environmental stadium designs to broader resource management practices such as energy efficiency, waste reduction, and sustainable water use. By examining these various efforts, the study will provide a detailed picture of the actions clubs are taking to address environmental concerns, laying the groundwork to explore the potential financial impacts of these initiatives on club operations and profitability.

2. *How do these initiatives contribute to cost savings?*

→ This question builds on the findings from Chapter 2.3, where various studies demonstrate how sustainable initiatives can lead to financial benefits for football clubs. For instance, Kellison (2015) highlights that pro-environmental stadium designs can result in long-term cost savings through reduced utility costs and efficient energy use. By exploring similar initiatives, this study will further investigate how these practices translate into measurable cost reductions and revenue opportunities, solidifying the economic rationale behind environmental sustainability in sports.

3. *How does sustainability engagement influence the attraction of new sponsors for football clubs?*

→ This question builds on insights from Kellison and Hong (2015), who found that green initiatives attract sponsors eager to align with environmentally conscious brands, often yielding immediate financial gains through ‘green sponsorships. This study analyses the impact of these initiatives on sponsor commitment and whether they help clubs to attract new sponsors.

4. *How does sustainability efforts of a football club, lead to increased fan engagement?*

→ This question explores how environmental sustainability initiatives can enhance fan loyalty and engagement. Cayolla et al. (2023) found that fans who positively viewed a Portuguese club's eco-friendly actions were more likely to attend matches, buy merchandise, and promote the club, leading to financial benefits. Likewise, Tavares et al. (2022) observed that CSR efforts enhance fans' pride, loyalty, and identification with the club, driving supportive behaviors. This study aims to further demonstrate how sustainability initiatives boost fan loyalty and consumer behavior, ultimately benefiting the club financially.

Together, these sub-questions form a structured pathway to systematically address the overarching research question, creating a comprehensive view of how sustainability initiatives impact club profitability.

3. Methodology

To determine the most appropriate research method for this study, three approaches - quantitative, qualitative, and mixed methods - were thoroughly assessed. While quantitative research focuses on gathering numerical data and conducting statistical analyses to measure trends or outcomes (Lakshman et al., 2000), this study requires a more nuanced exploration. Specifically, the study aims to present successfully implemented sustainability initiatives and analyze from different angles how these initiatives can lead to economic benefits for football clubs.

Given the need to delve into the complexities and varied viewpoints surrounding sustainability in football, a qualitative research approach was deemed the most suitable. As qualitative research is particularly effective in understanding complex phenomena by engaging with participants' perspectives and experiences (Fossey et al., 2002; Henline-Hall, 2024; Rogo, 2024) this approach aligns with the study's aim of examining sustainability initiatives through the lens of key stakeholders, including football club employees, stadium managers, industry experts, and fans.

Qualitative research is especially suited for this dissertation for several reasons. Unlike quantitative methods, which test hypotheses through statistical analysis, qualitative research allows for a richer and more comprehensive exploration of how sustainability measures can impact football club profitability. This approach facilitates the collection of detailed, contextualized insights (Henline-Hall, 2024), providing an opportunity to understand the nuanced dynamics between sustainability efforts and their financial outcomes. Moreover, qualitative research offers flexibility that quantitative methods typically lack. By utilizing semi-structured interviews, the research can adapt questions based on emerging themes, allowing new insights and challenges to shape the direction of the study (Fossey et al., 2002). This adaptability is particularly valuable in sustainability studies, where complex and evolving factors can emerge, enabling researchers to follow promising leads and investigate multifaceted topics in depth.

Another reason against the use of quantitative research was the lack of concrete key figures from the associations, a challenge that was highlighted in the literature review. As sustainability

initiatives are a relatively new area of focus for many clubs, there was a concern that they may not be able to provide accurate data on the financial impact of these initiatives.

In terms of the fan survey, qualitative research through interviews proved to be more suitable as it provides deeper insights into the impact of sustainability initiatives on fan engagement. Such a complex and emotive question cannot be answered effectively with a scale as it involves different personal preferences and perceptions that require more nuanced exploration.

3.1 Sample Strategy and Procedure

This study will employ purposeful sampling as the primary strategy for selecting participants, complemented by stratified sampling to ensure a representative selection of key stakeholders. Purposeful sampling allows for the intentional selection of individuals who have direct experience and knowledge related to a specific topic (Rogo, 2024). This approach ensures that participants chosen can provide valuable insights into how sustainability measures are implemented and their impact on the financial performance of the clubs.

To achieve a balanced and diverse set of perspectives, stratified sampling will also be used (Campbell et al., 2020). In this approach, the population is divided into distinct subgroups based on their roles and experiences related to sustainability in football. These subgroups include *football club employees*, *football sustainability experts (Industry experts)* and *fans*. Selecting participants from each of these subgroups enables the study to capture a wide range of insights on how sustainability initiatives affect profitability and stakeholder engagement.

Aligned with stakeholder theory (Freeman, 1984), each stakeholder category is intentionally chosen to address specific research sub-questions, ensuring that the diverse views of individuals directly affected by or influential in sustainability efforts are represented. This sampling framework also aligns with findings from Chapter 2.3, which identified three primary financial benefits of sustainability initiatives - cost savings, attracting new sponsors, and enhancing brand image and fan loyalty - directly related to the perspectives of each selected stakeholder group.

Stakeholder Group	Connection to Sustainability Initiatives	Sample Criteria	Key Interview Questions
Club Employees	Oversee the implementation of environmental initiatives, such as eco-efficient stadium design, energy-saving measures, and sustainable partnerships (Kellison & Hong, 2015).	Members of the sustainability departments in the clubs as well as arena managers.	<ul style="list-style-type: none"> - What are the main environmental sustainability initiatives clubs have implemented? - How do they assess the financial impact of these initiatives? - Have clubs been able to develop new partnerships through sustainability initiatives?
Fans	Their support is influenced by clubs' sustainability efforts, which enhance loyalty and can lead to increased attendance and merchandise sales (Cayolla et al., 2023).	Active supporters who engage with the club, get involved and regularly attend matches.	<ul style="list-style-type: none"> - How do they perceive the club's sustainability initiatives? - How do these initiatives impact their support and loyalty?
Industry Experts	Industry experts can provide insights into the long-term cost savings, sponsorship trends and brand benefits of sustainable strategies.	Professionals with experience in sustainability consulting or research in connection with sports or football clubs.	<ul style="list-style-type: none"> - What are the sustainability trends in football? - How can clubs use sustainability initiatives for financial benefit?

Table 1: Sampling Criteria

Furthermore, the study focuses on the German football market to ensure data consistency. Concentrating on this single national context allows for a deeper understanding of industry-specific dynamics, enabling more accurate comparisons across stakeholder groups. By narrowing the scope to German professional football, the study can better align with the country's unique sustainability standards and practices. This approach also leverages the availability of data and existing connections within the German football industry, providing a more robust foundation for analysis.

3.2 Data Collection Methods

This study will employ a qualitative approach to data collection, with semi-structured interviews serving as the primary method complemented by using secondary data. The rationale for using semi-structured interviews is to allow flexibility in exploring various dimensions of how sustainability initiatives are implemented and contribute to the financial health of football clubs, while still ensuring that key themes are consistently covered across all interviews. Semi-

structured interviews will be conducted with participants from the previously identified stakeholder groups. The open-ended nature of the interview questions will encourage participants to share their detailed experiences and insights, while allowing the interviewer to explore relevant topics as they arise during the conversation (Fossey et al., 2002). The interview questionnaires are specifically tailored to address the unique perspectives and expertise of the different stakeholder groups being interviewed. These tailored questionnaires are directly related to the key interview questions outlined in the table above, ensuring that each stakeholder's insights contribute to answering the specific sub-questions of this research. By focusing on the experiences and viewpoints of various stakeholders, the questionnaires are designed to gather comprehensive data that will ultimately help address the main research question regarding the role of sustainability initiatives in enhancing the profitability of football clubs.

The key points that the interviews will aim to cover include:

1. **Specific sustainability initiatives:** Participants will be asked about the types of sustainability measures their clubs have implemented, how these initiatives were selected, and their perceived success.
2. **Cost savings:** Questions will explore whether the adoption of sustainability initiatives has led to cost reductions (e.g., energy efficiency, waste management) or created new revenue streams through sponsorships or eco-friendly partnerships.
3. **Impact on sponsor decision-making:** Interviewees from the clubs and industry experts will be asked how sustainability initiatives can attract new sponsors and influence the longevity of existing partnerships.
4. **Fan engagement and brand image:** Discussions will focus on how sustainability initiatives have impacted fan loyalty, brand reputation, and how these factors translate into financial benefits for the club.
5. **Challenges and opportunities:** Participants will be asked about the challenges they face in implementing sustainability initiatives and any future opportunities they see for advancing sustainability in football.

The interviewees are contacted via various channels primarily *LinkedIn* and informed about the research in a standardized letter. Once participants have agreed to take part, interviews will be scheduled based on their availability, and conducted either over the phone, or via video conferencing platforms such as *Zoom*. Each interview is expected to last between 20 to 45 minutes, allowing sufficient time to delve into key topics. With participant consent, all

interviews will be recorded for accuracy and later transcribed for analysis. Notes will also be taken during the interviews to capture important insights.

To potentially include additional participants who possess valuable insights but were not part of the initial selection, this thesis employs snowball sampling. This method involves asking current participants to recommend other individuals whom they believe could offer relevant knowledge and contribute meaningfully to the study. This approach allows for the inclusion of a broader range of perspectives, particularly those that may have been overlooked in the initial sampling process (Fossey et al., 2002). To ensure that the analysis of the qualitative data was comprehensive enough to answer the research questions without duplicating findings or including irrelevant information, the principle of meaning saturation was applied. Meaning saturation refers to the point in the qualitative data collection at which no new or relevant insights emerge from additional interviews, confirming that the research topic has been captured in its full scope (Saunders et al., 2017). By achieving saturation of meaning, the study was able to capture the complexity and nuances of the impact of sustainability practices on football club profitability from multiple perspectives. This approach improved the resilience of the findings and provided a well-rounded understanding of the key factors influencing sustainability in the football sector.

3.3 Data Analysis

To analyze the qualitative data collected through semi-structured interviews, this study employs thematic analysis (Braun & Clarke, 2006). Thematic analysis is well-suited for this research as it allows for the identification, analysis, and interpretation of key themes or patterns across the dataset, providing a deeper understanding of how football clubs can strategically leverage sustainability initiatives to enhance profitability. More specifically, the study applies the systematic approach developed by Gioia et al. (2013), which is based on grounded theory and aims to derive higher-order concepts from the raw data through iterative coding. This approach allows researchers to move between the raw data and emerging concepts, refining their understanding and increasing the likelihood of uncovering meaningful patterns and relationships. The analysis consists of three main stages. The first stage, open coding, involves breaking down the data into smaller units, with first-order concepts being directly derived from the participants' wording. This ensures the analysis stays close to the data and reflects the participants' perspectives. The second stage, axial coding, groups related first-order concepts into broader second-order themes. These themes are more abstract than the initial codes and help reveal patterns and connections in the data. The final stage, selective coding, synthesizes

the second-order themes into aggregated dimensions, representing high-level concepts that form the basis for developing a theoretical model (Gioia et al., 2013).

For a more structured and comprehensive analysis of the interview transcripts, the coding software called *Delvetool* was employed. Following this, the findings were consolidated and organized in an Excel table, which is presented in the appendix. Throughout the analysis, all four research questions were carefully considered, ensuring that the results were examined specifically in relation to addressing these questions.

4. Results

All 10 interviews provided valuable insights, significantly contributing to the overall objectives of this study, to investigate whether and, if so, how sustainability initiatives contribute to the profitability of football clubs. Through the application of meaning saturation, it became evident that 10 interviews were sufficient to capture a comprehensive range of perspectives from the three stakeholder groups. The following table offers an overview of the interviewees, their respective stakeholder groups, and their roles.

Participants	Role	Years of Experience / Age	Stakeholder Group
NB	Director Corporate Social Responsibility at a Bundesliga Club	14 Years	Club Manager
PL	'Football culture & social issues' Fan PR, CSR and sustainability at a 2. Bundesliga Club	6 Years	
SB	Director Arena Management and Sustainability at a Bundesliga Club	15 Years	
JE	Executive Management Associate at a Bundesliga Club	3 Years	
SW	Corporate Development at a Bundesliga Club and Part of the DFL Sustainability Commission	16 Years	
JK_1	Board of an association for integrity and sustainability in football	18 Years	Industry Experts
SP	Founder of a sports marketing agency and Chairman of the Board of the Professional Association of Sports Managers in Germany	14 Years	
JK_2	Senior Manager Sustainability at the largest sports marketing agency in Germany	6 Years	
MS	Fan of a Bundesliga Club	25 Years old	Fan
TS	Fan of a Bundesliga Club	62 Years old	

Table 2: Interview Participants

Tables 4, 5 and 6 in the appendix show the results of the thematic analysis, categorised according to the three stakeholder groups surveyed: fans, club management, and industry experts. Across all groups, a total of 11 aggregate dimensions were identified, which are analysed in detail below. Through this analysis, commonalities and differences across the stakeholder groups were identified, providing valuable insights into how environmental sustainability initiatives are perceived in terms of cost savings, sponsorship opportunities, and fan engagement. The interviews were first analyzed individually, allowing for a deeper understanding of each group's unique perspective. In the following section, the key aggregate dimensions related to the research questions are combined and analyzed together. Specifically, the sustainability initiatives implemented by football clubs and their economic impacts—such as cost savings, potential for increased sponsorship, and fan engagement—are grouped and examined. This approach allows for a more comprehensive understanding of how these factors intersect and contribute to the broader sustainability efforts of football clubs.

4.1 Football clubs adopt eco-friendly practices like energy efficiency, renewable energy, water conservation, and sustainable transport to reduce their environmental impact.

Football clubs are taking steps to reduce their environmental footprint by introducing more sustainable measures. These initiatives include installing energy-efficient technologies like LED lighting and solar panels on stadium roofs, which help cut down on energy consumption and lower carbon emissions. To save water, clubs mentioned rainwater collection systems for watering the pitch in order to make better use of available resources. When it comes to transportation, some clubs are encouraging more sustainable travel options, such as offering combined tickets that include free access to public transport on match days. However, this is not yet the norm, with only two of the four clubs surveyed currently offering these types of initiatives. As Industry Expert JK_1 pointed out, “*There is no active steering from the fans towards sustainable travel.*” He also mentioned that some Bundesliga stadiums are situated in locations that make them harder to reach by public transport, often being positioned at motorway junctions rather than in city centers. JK_2 shared that catering has seen some improvements, with more vegan and vegetarian options now available at stadiums. In terms of waste, the clubs have switched to reusable cups with a deposit system. Furthermore, he noted that there are still fewer sustainability-focused initiatives in merchandising at this point which shows that there is still room for improvement as well.

4.2 Football clubs benefit financially from sustainability initiatives through operational cost reductions and increased sponsorship opportunities

This section summarizes the responses from club managers and industry experts, focusing on the financial benefits of sustainability initiatives such as cost savings and sponsorship opportunities.

4.2.1 Energy Efficiency and Operational Cost Reduction

The results of the interviews confirm the theory emphasised in chapter 2.3 that environmentally friendly stadium designs lead to long-term cost savings through reduced utility costs. For instance, the implementation of LED lighting has not only significantly cut energy consumption but also lowered operating costs, as electricity no longer needs to be purchased at high rates. Another key initiative mentioned by all the clubs is the installation of photovoltaic systems on stadium roofs or club buildings. According to JK_1, these systems typically amortize within 6-7 years by using self-generated solar power and the reduction in electricity purchase costs. While this represents an initial financial investment, it ultimately results in significant cost savings over time. Clubs are also realizing savings through the optimization of resource management, such as the use of energy management systems for pitch irrigation. As SB noted, *“We have reduced the running time of the pump for the lawn heating, saving energy and costs.”*

4.2.2 Increasing Sponsorship Potential

In addition to operational cost reductions, clubs are also benefiting from increased sponsorship potential. Sustainability is becoming a major factor in attracting new partners, as many brands now prioritize environmental responsibility. As mentioned by SW *“...we see economic benefits, particularly in partnerships that explicitly address sustainability. I believe this trend will increase. It will become more difficult to enter partnerships if a club has no sustainability initiatives to show for itself...”*. This emphasizes that a commitment to sustainability not only attracts new sponsors but is also increasingly seen as a fundamental requirement for any partnership. This is also highlighted by NB, who says: *“This commitment helps us to retain existing sponsors and attract new ones.”* These partnerships bring mutual benefits, not only providing clubs with financial support but also facilitating the realization of sustainable projects, often supported by the expertise of the partners. A key aspect of these collaborations is the regional connection and the authenticity of the partnership, as mentioned by PL. It is

essential for the sponsor to align with the club's values, ensuring that the partnership is effective in external communication and leads to a positive image transfer for both parties.

However, it is important to note the contrasting view expressed by the industry experts, who do not observe a clear trend linking sustainability initiatives to attracting new sponsors. Their perspective highlights that, while sustainability is gaining importance, it is not necessarily a decisive factor in the sponsorship decision-making process.

4.3 While sport continues to take center stage, fans are placing more and more emphasis on sustainability initiatives

This section summarizes and compares the responses from club managers, industry experts, and fans regarding the impact of sustainability initiatives on fan engagement and loyalty. While the primary focus for fans remains the sport itself, sustainability is steadily gaining importance as a consideration. Fans now expect their clubs to engage in eco-friendly practices, as reflected in SB's comment about the positive reception of initiatives such as combined match tickets that include public transport. The interviews with fans further confirmed this trend, with both fans highlighting the value of such initiatives, particularly the combined ticket system that allows free travel to the stadium via public transport. The fans' desire for more information about their clubs' sustainability efforts also indicates that there is growing interest in these practices.

However, the acceptance of certain sustainability initiatives varies across different fan groups, with clear limitations. For example, sustainability measures such as offering vegetarian versions of traditional stadium food, like the classic stadium sausage, have met with limited acceptance. This suggests that sustainability efforts should not completely replace the traditional fan experience. As JE mentioned, *“There is still a fine line between sustainability ideals and individual convenience.”*

This view is linked to that of industry experts SP and JK_1, who emphasize that fans represent a broad cross-section of society. The acceptance of sustainability measures often varies depending on the respective demographic group. NB adds that younger fans, particularly those in the 'Purpose Generation', are more engaged in sustainability efforts, indicating a generational shift in priorities. The previously mentioned merchandising was also highlighted here. Both a fan and an industry expert noted that sustainability campaigns in this area could indeed have an impact on consumer purchasing decisions. When asked whether the sustainability efforts had a positive impact on fan loyalty, opinions were divided. Although the club manager NB mentioned that the club's measures have had a positive impact on fan loyalty,

the majority confirmed that the focus remains on the sport. The fans also agreed in the interviews that, despite the positive benefits and perception, sustainability is only a marginal issue for them and has no influence on their loyalty to the club or their willingness to attend matches.

SW: *“I don't think you win new fans with sustainability initiatives, but they can contribute to stability and identification. That happens on a different level than sporting success.”* This suggests that sustainability initiatives can foster a sense of identification with the club, even if their impact varies depending on the demographic group.

4.4 Future Outlook: Advancing Sustainability in Football

This chapter summarizes three aggregate dimensions, all in the context of what is to change in the future.

4.4.1 Club Perspective: Integrating Sustainability into Long-Term Strategy

Interviews with club managers reveal a growing awareness of the need for clubs to integrate sustainability into their long-term strategic planning, including the introduction of innovative solutions such as energy-efficient technologies and the design of multifunctional spaces that can be utilised outside of match days to ensure that stadiums make a positive contribution to the environment and community all year round. As NB emphasized, clubs need to shift their focus and incorporate long-term environmental goals alongside their traditional short-term business goals. PL highlighted the critical importance of integrating climate change mitigation into the core business model. In the face of the increasing challenges posed by climate change - such as extreme weather events - this approach is crucial to ensuring the future viability of stadium operations. If these risks are not addressed, the future viability of sporting events could be in danger. Furthermore, NB and SW highlighted that realizing this shift within clubs requires the expertise of professionals in energy, waste, and environmental management. Clear, ambitious sustainability goals are essential to drive meaningful change, with these targets serving as a framework for clubs to transition towards more sustainable, resilient operations.

4.4.2 Fan Perspective: Expectations for Improved Sustainability Practices

From the fan perspective, sustainability is becoming an increasingly important aspect of the overall matchday experience, particularly when it comes to waste management and transportation solutions. Fans have expressed a strong desire for football clubs to implement more sustainable practices in these areas. The fans surveyed expressed the wish that their

football clubs should provide more information about their sustainability efforts and projects. They also feel that football as an industry should take a stronger stance on sustainability, with TS stating, *“I don't know whether they will. But they should because football moves large crowds and has a high energy consumption.”* MS supported this statement, saying, *“The resources used in football make the topic particularly relevant.”* They expressed specific wishes regarding waste disposal and transport to away matches. MS proposed the introduction of *“rubbish collection points in the block”* as a simple but effective measure to enhance sustainability during a typical stadium visit. He also suggested *“combined tickets for away games”* that would encourage fans to use more sustainable modes of transport. In terms of merchandise, MS highlighted the potential influence of sustainable products on consumer behavior, noting, *“I would definitely notice that my consumer behavior would be influenced if I knew that the sustainable jersey variant here costs €10 more but is made from sustainable materials.”* To sum up, fans are not only asking for better communication about the sustainability initiatives of their clubs, but they also expect football clubs to lead the way in adopting more sustainable practices. They view this as part of the broader responsibility clubs have to address their environmental impact and contribute to sustainability efforts within the industry.

4.4.3 Industry Experts: Perspectives on the Future of Sustainability in Football

Looking to the future JK_2 noted that the current political and economic climate, including inflation and other priorities, is slowing the development of sustainability initiatives in football. However, they remain optimistic about long-term trends such as the circular economy, climate adaptation, and a stronger focus on diversity. SP highlighted that while smaller clubs might have fewer resources, even basic measures such as LED lighting and recycling programs can still make a significant impact. JK_2 pointed out that partnerships are becoming more specialized, with new service providers from the sharing economy improving fan mobility, demonstrating that innovation in sustainability is ongoing.

5. Discussion

5.1 Theoretical Contribution

Comparisons between the literature review and this study reveal both confirmations and contradictions of previous research as well as new perspectives that shed light on how sustainability initiatives can have a positive impact on the profitability of football clubs.

Starting with what specific sustainability initiatives football clubs are taking to reduce their environmental impact the interviewed clubs are tackling the key sources of environmental impact mentioned in 2.1 stadium energy consumption, waste generation, and CO₂ emissions associated with fan travel with specific actions (Loewen & Wicker, 2021; Dederichs, 2022; Dosumu et al. 2014). All of the clubs analyzed have made efforts to make their stadiums more energy-efficient and environmentally friendly, which shows a clear trend towards sustainable buildings and sustainable stadium management among Bundesliga clubs. This trend could also be strengthened by the steady introduction of governmental and non-governmental standards specifically tailored to stadiums and training centers, as mentioned in chapter 2.2. Despite these increasing sustainability efforts, many stadiums are still a long way from switching completely to renewable energy. While some clubs have set themselves ambitious targets, such as achieving net-zero emissions by 2025, others lack clear, measurable sustainability goals. This could be partly because the DFL licensing regulations do not contain any specific, measurable targets.

Fan mobility is by far the biggest source of emissions for football clubs, as already mentioned in chapter 2.1. The majority of Bundesliga clubs incentivize the use of local transport through their combined tickets. However, this does not seem to be enough, as indicated by the study from the 2018/19 season, which reported a total CO₂ consumption of 369,765.2 tonnes of CO₂-e, with 70% of these emissions attributed to car traffic (Loewen & Wicker, 2021). From the perspective of stakeholder theory (Freeman, 1984), football clubs need to reconcile the expectations of different stakeholders, including fans, while working towards sustainability. It is therefore important to address the issue of fan mobility further. The fans surveyed supported and made use of the club's commitment to sustainable travel options, particularly for local transport. However, they expressed a desire for more support and initiatives for away travel, highlighting an area where clubs can improve their sustainability efforts and better respond to fans expectations. Nevertheless, it is important to emphasize that the mobility transition is first and foremost a government issue. Whilst the associations can and should contribute to its promotion, their influence on implementation at a broader level remains limited.

Waste generation is another significant environmental concern for football clubs. In the interviews, club representatives emphasized various efforts to reduce waste, in particular by switching from disposable to reusable products which aligns with efforts to promote a circular economy. These efforts are crucial to minimizing the environmental impact of match days,

improving the clubs' overall environmental footprint, and meeting the Bundesliga's increasingly stringent minimum sustainability requirements.

The interviews confirmed that football clubs in the Bundesliga are realizing financial benefits through sustainability initiatives, which aligns with the findings in the literature that sustainable practices can lead to long-term cost savings through reduced utility costs (Kellison & Hong, 2015). Specifically, the clubs mentioned the implementation of solar panels, LED lighting, and smart energy management systems. These initiatives not only save energy and reduce electricity bills but also eliminate the need to purchase expensive external electricity, thanks to the electricity generated in-house. This is particularly relevant in light of forecasts predicting that electricity prices will continue to rise in Germany (vbw, 2023). The energy management systems are in line with the listed theory of eco-efficiency (Caiado et al., 2017), which states that improving resource efficiency allows organizations to simultaneously reduce environmental impact and increase financial performance.

Moreover, sustainability initiatives extend beyond operational savings. The clubs surveyed have recognized the importance of sustainability in attracting and retaining sponsors, which is in line with the concept of 'shared values' (Hindmarsh et. al, 2024) in partnerships. As companies prioritize sustainability, those involved in sports sponsorship are actively seeking clubs that demonstrate a commitment to environmental responsibility. The results also support the idea that sustainability initiatives strengthen the attractiveness of 'green sponsors,' as highlighted by Kellison and Hong (2015). Stakeholder theory also comes into the picture again here, with sponsors as one of the most important stakeholders of clubs. In addition, there is a two-way image transfer where clubs can improve their reputation while helping sponsors to improve their reputation, ultimately leading to a mutually beneficial relationship and contributing to the club's positive public image.

The interviews revealed that while fans view sustainability initiatives positively, these efforts have limited impact on fan loyalty. Many fans appreciate initiatives like combined match tickets for public transport but still consider the sport itself the primary focus of their loyalty. This finding contrasts with studies by Cayolla et al. (2023) and Tavares et al. (2022), which found a stronger connection between CSR initiatives and fan loyalty. However, this discrepancy may be due to cultural differences, as the study in question was conducted in a different country, where fan culture may vary. The results do not suggest that increased sustainability initiatives significantly influence fans' engagement in attending more games. The findings align more

closely with Tavares et al.'s statement that positive perceptions of CSR significantly strengthen fans' identification with the club. However, this effect is also strongly dependent on the target group, as football fans represent a broad cross-section of society, and not all fans prioritize sustainability in the same way. In terms of merchandising, the fans expressed a clear desire for more sustainable products.

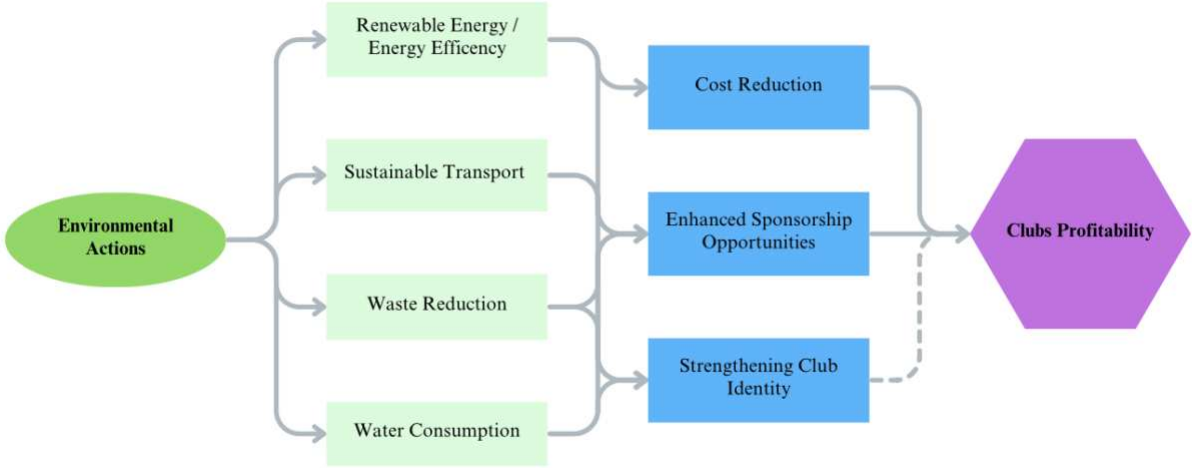


Figure 1: Impact of Environmental Actions on Football Club Profitability

The flowchart illustrates the four main areas for environmental action identified in the surveys: renewable energy and energy efficiency, sustainable transport, waste reduction and water consumption. These initiatives offer two main financial benefits to clubs: Photovoltaic installations and energy management systems (in the flowchart labelled as Renewable Energy / Energy Efficiency) contribute to significant cost reductions. Sponsorship opportunities are growing, primarily driven by an enhanced brand image and the rise of green sponsorships, such as the example of the partnership with a ride-sharing app. Moreover, all measures help to strengthen fan identity, even if this effect does not apply to all fan groups. The combination of reduced operating costs and increased sponsorship has a direct impact on the profitability of football clubs. In addition, a stronger club identity can contribute to profitability by attracting new groups of spectators and increasing the loyalty of certain existing fans. However, this impact on profitability remains indirect, as the club's identity is influenced by numerous factors beyond sustainability efforts.

5.2 Managerial Contribution

This study provides practical insights that can support and motivate football clubs in integrating sustainability initiatives into their operational strategies. These insights are valuable for

improving their environmental impact while increasing financial performance and brand image. The findings of this study highlight several key areas where football clubs can benefit from adopting more sustainable practices.

Football clubs can benefit significantly from investments in energy-efficient technologies and renewable energy sources. The findings from this study show that clubs are already seeing operational cost reductions through initiatives such as the installation of solar panels and the transition to LED lighting. These initiatives are in line with global sustainability trends and can be further emphasized in clubs' long-term strategies to reduce electricity costs. With rising energy prices predicted by sources such as VBW (2023), investing in renewable energy offers both the opportunity for cost savings and a competitive advantage in meeting future environmental regulations. For example, the German government has set a target for at least 80 per cent of electricity consumption to come from renewables by 2030 (Bundesregierung, 2024). This shift is likely to influence policy decisions, including those affecting the construction and operation of stadiums, with possible future legislation mandating the installation of photovoltaic systems or the purchase of green electricity. By proactively addressing these challenges, clubs can give themselves a significant advantage in terms of innovation and sustainability. In addition to regulatory pressure, the increasing importance of environmental, social and governance (ESG) criteria is becoming a decisive factor in access to and the cost of capital. Investors are increasingly incorporating ESG factors into their lending and investment decisions, making it advantageous for organisations to adopt sustainability practices in order to obtain funding opportunities. Furthermore, such measures can increase their attractiveness when applying for major sporting events, as organisers are placing increasing emphasis on environmental sustainability in their selection criteria. In this context, sustainability certification for stadiums, such as *DGNB* (n.d.) certification, a widely recognized rating system for sustainable buildings, could be of great benefit. This would not only provide clubs with expert advice and support from the certifier in implementing sustainable practices but would also improve their image and credibility. Such certification would emphasize the association's commitment to sustainability, increase its legitimacy and potentially attract more stakeholders, including sponsors and media.

To effectively evaluate the success of sustainability measures and assess their financial impact, clubs should establish a solid data foundation by implementing key performance indicators and conducting annual analyses. To enhance sponsorship opportunities, clubs should prioritize clear and transparent communication of their sustainability practices. By aligning their values with

those of potential sponsors, clubs can attract partners from the sustainability sector who share a genuine commitment to environmental responsibility. This approach not only generates additional revenue for the clubs but also helps fund sustainability initiatives, making them more actionable and impactful. Focusing on regional partnerships can enhance the appeal of sponsorships. By aligning sustainability initiatives with local values, clubs can strengthen their connection with fans and attract sponsors who share these values. These authentic partnerships foster mutual success, benefiting both the club and the sponsor while enhancing their shared reputation.

As mentioned earlier, football fans are already making efforts to reduce their CO₂ emissions and are continuously seeking improvements. However, substantial progress is still required, particularly in the area of fan mobility, as it remains the largest source of emissions. Football clubs must take action on multiple fronts to address this issue. They need to raise awareness about the environmental impact of car travel and actively promote alternative, sustainable transportation options, especially for long-distance away games. For instance, a partnership with a ride-sharing app could reduce individual car journeys and lower overall emissions by encouraging fans to carpool. Such initiatives could open new sponsorship opportunities, benefiting both the environment and the clubs financially.

In addition to the reusable cups that have now become standard, the clubs should find a long-term solution, e.g. to produce currywurst trays from natural raw materials and then recycle the leftovers and further reduce their consumption of resources and promote the circular economy. Such measures are becoming increasingly necessary as the cost of single-use packaging continues to rise due to initiatives such as the EU plastic levy (European Commission 2020) and the German Single-Use Plastic Fund Act (BMUV, 2023). These laws shift the financial burden of plastic waste onto manufacturers, making the procurement and disposal of single-use containers more expensive. Effective waste separation systems are also an integral part of a positive stadium experience, as highlighted in the fan interview with MS. These systems can particularly influence the club's environmentally conscious target audience, reinforcing the club's commitment to sustainability.

Clubs can also enhance their sustainability efforts through merchandising. As highlighted in the interviews, initiatives like transforming old jerseys into new products are well-received by fans, offering both a sustainability aspect and a unique, personalized touch. Upcycling, in particular, presents a great opportunity for clubs to embrace sustainability while creating distinctive merchandise. Additionally, establishing a sustainable product line not only aligns with

environmental goals but also opens up a new revenue stream for the club, contributing to its financial growth.

Furthermore, it is essential for clubs to keep fans informed about their sustainability initiatives. Fans' growing interest in sustainability reflects a broader trend where supporters increasingly expect clubs to take responsibility for their environmental impact. Clubs should fulfil these expectations by being more transparent about their sustainable practices. Social media platforms offer a powerful tool to engage fans, especially the younger generation, who are more aware of environmental issues. To further enhance fan involvement, clubs could leverage gamification and reward systems, making participation more engaging and fun. Such initiatives could have a broader impact on fan behavior, influencing not only stadium experience but also encouraging more sustainable practices in their everyday lives.

Finally, the long-term integration of sustainability into clubs' business strategies requires constant innovation. A notable example of this is the English club Forest Green Rovers, which has become a pioneer of sustainable practices through its 'Another Way' program and is officially the most sustainable football club in the world. This initiative includes using renewable energy, an organic pitch, the organization group travels to the away games, charging stations for electric vehicles at the stadium and offering a fully vegan menu for the players and the fans (Papp-Vary & Farkas, 2022). Forest Green Rovers exemplifies how clubs can successfully integrate sustainability into their operations while remaining competitive.

The industry experts interviewed point out that despite having fewer resources, smaller clubs can make a significant impact with basic measures such as LED lighting and recycling programs. In addition, sustainability initiatives need to evolve in response to market trends, policy changes and the growing demand for greener practices from sponsors, fans, and associations.

5. Limitations and further research

While this study provides valuable insights into the integration of sustainability initiatives within football clubs, there are several limitations that should be acknowledged. These limitations may influence the applicability and generalizability of the findings. Recognizing these constraints opens up possibilities for future research that could further enrich the understanding of sustainability practices in the football industry.

One of the key limitations of this study is its geographic focus on the German football market. The research primarily examines the practices and perspectives of Bundesliga clubs, which

limits the applicability of the findings to other countries or regions. The German football context, with its specific regulations, fan culture, and market dynamics, may differ significantly from those in other countries. Consequently, the results of this study may not be fully transferable to football clubs in other regions, such as in the UK, Spain, or Portugal where the market structure and stakeholder expectations may vary. Future studies could expand on this limitation by exploring sustainability initiatives in other football leagues or regions to assess the influence of geographic and cultural factors on sustainability adoption and implementation.

A significant limitation of this study is the lack of specific financial data regarding the impact of sustainability initiatives at the surveyed clubs. Although the clubs mentioned that the introduction of sustainable practices such as energy-efficient technologies or renewable energy sources can lead to cost savings, they did not provide any concrete financial figures or detailed analyses. This absence of data can be attributed to two main factors. Firstly, many clubs do not systematically track the financial impact of their sustainability efforts and do not track the return on investment, for instance. Secondly, financial data is considered sensitive information by clubs, and they may be reluctant to disclose such figures due to confidentiality concerns or internal policies. The lack of clear financial data presents a challenge when it comes to fully understanding the economic benefits and long-term viability of these sustainability efforts.

Another limitation of this study is its focus on professional football clubs from the top-tier Bundesliga. The results may not be fully representative of clubs from lower divisions, which often have fewer resources and less financial flexibility to invest in sustainability initiatives. While first-division clubs have more financial and institutional capacity to implement and monitor such initiatives, clubs in lower divisions may face greater challenges in adopting similar practices due to budget constraints, limited access to sponsorship, and reduced fan engagement. As a result, the findings from this study may not fully capture the broader spectrum of sustainability efforts across the entire football landscape, and future research could expand to include clubs from various divisions to compare and contrast their sustainability practices and outcomes.

An additional potential limitation of this study is the possible bias of the participants due to the sample of respondents. The sample comprised mainly club management stakeholders, industry experts and a small group of fans. This sample may not be fully representative of the wider fan base, particularly those less interested in sustainability initiatives. In addition, stakeholders involved in the implementation of sustainability programs may have held a more positive view due to their vested interest in the success of these efforts. Their responses may have been

influenced by a desire to demonstrate the benefits and justify investments. Expanding the sample to include a wider range of fan demographics would provide a more balanced understanding of how sustainability initiatives are perceived by different groups.

6. Conclusion

The aim of this study was to show that the environmental initiatives of football clubs are not at odds with economic considerations, but that sustainability and profitability can reinforce each other. The results offer valuable contributions for both theory and practice. The results offer valuable contributions for both theory and practice.

The results indicate that German football clubs are already realizing tangible cost savings through energy-efficient practices and the use of self-generated green electricity. These initiatives not only reduce operational costs but also enhance the clubs' attractiveness to potential sponsors. As companies increasingly prioritize sustainability, clubs that demonstrate a commitment to environmental responsibility are gaining access to new sponsorship opportunities. The study also highlighted that the authenticity of partnerships and alignment with regional and community-focused initiatives are essential for successful sponsorships.

From the fans' perspective, the issue of sustainability is becoming increasingly important, but football still remains the centre of attention. Although sustainability efforts are recognized and appreciated by fans, they do not have a direct impact on fan loyalty or match attendance. Football fans represent a broad cross-section of society, meaning the relevance of sustainability initiatives varies depending on the target group. It is important to note that a complete overhaul of the traditional stadium experience will not be well received, as acceptance for such drastic changes is limited.

The study suggests that clubs should integrate sustainability into their long-term strategies for several reasons. Investments in renewable energies are essential as they not only promise long-term savings but are also becoming increasingly important in view of rising energy prices. Continued investment in renewable energy is crucial, as it not only promises long-term savings but also becomes increasingly relevant in light of rising energy prices. Given the high upfront costs, clubs should consider partnerships with external stakeholders to implement these initiatives and create mutual benefits. Furthermore, clubs need to better communicate their sustainability efforts to better engage fans, as their expectations continue to rise.

To conclude, football clubs with their large public influence have a unique opportunity to lead by example. By incorporating sustainability into their activities, they can reduce their

environmental footprint, improve operational costs, attract valuable sponsors and strengthen relationships with their stakeholders. Ultimately, football clubs can position themselves as leaders in sport and sustainability and prove that football is much more than just a game!

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APPENDIX

Appendix 1: Semi-Structured Interview Protocol for Club Managers

#	Topic	Question
1	Introduction	<ul style="list-style-type: none"> - Can you provide a brief overview of your work in CSR and sustainability at your football club? - What were your main responsibilities and focus areas? - When did your club establish its sustainability department, and what is its structure?
2	Sustainability Initiatives	<ul style="list-style-type: none"> - What specific environmental sustainability initiatives have been implemented at your club?
3	Financial Impact	<ul style="list-style-type: none"> - How have these sustainability initiatives led to financial benefits for the club, such as cost savings? - Have these sustainability initiatives led to new partnerships or sponsors for the club? - Do you have specific examples or figures?
4	Sustainability and Fan Engagement	<ul style="list-style-type: none"> - How do you think the sustainability initiatives have impacted fan loyalty? - Have you received feedback from fans indicating that sustainability projects have strengthened their connection with the club?
5	Communication	<ul style="list-style-type: none"> - How important is communication about sustainability initiatives to the fans and other stakeholders? - What strategies did you use to engage fans in sustainability initiatives?
6	Future of Sustainability in Football	<ul style="list-style-type: none"> - What future developments or trends in sustainability do you think are crucial for football clubs to embrace?
7	Closing	<ul style="list-style-type: none"> - Can you recommend others who might have valuable insights into the sustainability initiatives at the club, or people who would be willing to participate in further discussions?

Appendix 2: Semi-Structured Interview Protocol for Fans

#	Topic	Question
1	Introduction	- Can you briefly introduce yourself and your connection to the club?
2	Perception of Sustainability Initiatives	- How closely do you follow the sustainability initiatives of your club - Were you aware that your club is active in environmental and sustainability efforts? If yes, how did you learn about this? - Which specific initiatives or actions of your club are you aware of?
3	Impression of Sustainability Initiatives	- Which specific initiatives or actions of your club are you aware of?
4	Impact on Fan Loyalty and Behavior	- Has your club's commitment to sustainability affected your attitude toward the club? If yes, in what way? - Would you say that these initiatives have strengthened your loyalty to the club? - Do you support the club more actively because of its sustainability efforts for example attending more games, buying merchandise?
5	Club's Communication	- How well-informed do you feel about the club's sustainability initiatives?
6	Future Sustainability Initiatives	- What other sustainability measures would you like to see your club take? - Do you believe that sustainability initiatives should play an even larger role in football in the future?

Appendix 3: Semi-Structured Interview Protocol for Industry Experts

#	Topic	Question
1	Introduction	- Could you briefly introduce yourself and your role in the field of sustainability in football? What are the main objectives of your work or organization?
2	Sustainability in Football	- What ecological sustainability initiatives are currently being implemented by football clubs? - Which areas do you find these initiatives to be most visible or impactful?
3	Potential Benefits	- Can you share examples of sustainability efforts that have resulted in measurable financial benefits, such as cost savings or new revenue streams? - How do sustainability initiatives influence the decision-making process of potential sponsors in football? - Are there examples where clubs have gained new sponsors or strengthened existing partnerships through their sustainability efforts?
4	Impact on Fan Loyalty	- How do you think sustainability initiatives affect fans' perceptions of their clubs? - Do you believe that sustainability initiatives can strengthen fan loyalty and engagement?
5	Future Outlook	- What trends or developments in sustainability do you see having the most impact on the future of football, particularly regarding the financial performance of clubs? - Based on your expertise, what best practices would you recommend for football clubs looking to enhance their sustainability initiatives?
6	Closing	- Can you recommend any other individuals or organizations within the football industry who have valuable insights on sustainability initiatives?

Appendix 4: Thematic Analysis Table Club Managers

First-Order Concepts (direct quotations)	Second-Order Themes (derived themes)	Aggregate Dimensions (superordinate concepts)
<p>"We implemented a number of measures right from the start, such as a photovoltaic system on the stadium roof and LED lighting in the car park, and in recent years we have switched the lighting throughout the building to LED and installed motion detectors. We use district heating from a waste-to-energy plant, which has a good carbon footprint." (SB)</p> <p>"Specifically, we have implemented various measures, such as the installation of photovoltaic systems, the switch to LED lighting" (NB)</p> <p>"We also use 100% green electricity for all our facilities." (NB)</p> <p>"Since 2016, we have been using energy management to optimize our operating processes. For example, we discovered that a pump for the pitch heating was running without a plug and was in operation 24/7." (SB)</p> <p>"We have installed solar panels on the new grandstand." (PL)</p> <p>"For example, we decided as a club to convert the floodlights some time ago, adding completely LED lighting." (JE)</p> <p>"In future, the solar cells on the roof will cover around 10 % of the annual electricity requirement." (JE)</p> <p>"Another example is the match day ticket, which can automatically be used as a public transport ticket. This concept applies not only to the city area, but in some cases also beyond the region to enable people from outside the city area to travel in an environmentally friendly way." (JE)</p> <p>"Bus and train journey is included in the ticket." (SB)</p> <p>"With a match ticket, fans can use the buses four hours before kick-off." (NB)</p> <p>"We are using rainwater collection systems for lawn irrigation and toilet flushing." (NB)</p> <p>"We have four water cisterns that collect rainwater and use it to flush the toilets in the stadium. When watering the pitches, we use sensor technology that measures the moisture content of the soil to enable us to water the pitches as required. This also saves water." (NB)</p> <p>"This approach - 'TSG is movement' - encompasses various fields of action and enables us to enter into sustainability partnerships and benefit economically. This includes data-based strategies, ecological topics such as zero waste or race to zero and regional projects. Everything is part of a comprehensive idea that cannot be reduced to individual measures." (SW)</p> <p>"We have reduced the running time of the pump for the lawn heating, thereby saving energy and costs." (SB)</p> <p>"Thanks to energy management software and numerous sensors that we have installed, we can monitor energy consumption in detail and control it more efficiently. This has already enabled us to make significant savings." (NB)</p> <p>"Over the last 7 to 8 years, for example, we have converted almost the entire association to LED with a partner called Trilux, which has of course made us much more energy efficient and reduced the amount of electricity we consume and have to purchase." (NB)</p> <p>"One example is the conversion of the floodlights to LED lights, which had a significant impact on the electricity bill." (JE)</p> <p>"In the long term, renewable energies will also amortise." (PL)</p> <p>"Since 2016, we have been using energy management to optimise our operating processes. For example, we discovered that a pump for the turf heating was running without a plug and was in operation 24/7. We were able to rectify such errors, which led to savings." SB</p> <p>"This commitment helps us to retain existing sponsors and attract new ones. In addition to the specific measures and additional revenue, it is also about developing long-term concepts such as an energy concept. One example would be the dismantling of heated pools or the targeted freezing of pitches in winter, which has enabled us to save heating energy and costs." (NB)</p> <p>"Another example is our active approach to marketing. Since 2014, we have acquired sponsors who were not previously active in sports sponsorship. This has led to additional income, and to a not inconsiderable extent. Our partner Kieback&Peter is also new, with whom we want to implement even more energy-efficient stadium management. This collaboration shows how important authentic partnerships are for us." (NB)</p> <p>"Sponsors play a major role, especially partners such as Mainova. Projects such as the expansion of the e-charging station fleet were initiated by sponsors such as Hyundai and Mainova. Sometimes we develop projects internally and then approach partners. In other cases, the sponsors themselves approach us with suggestions. Of course, money is often the decisive driver..." (JE)</p> <p>"What we do have, however, is an image boost that makes us more attractive to sponsors. For example, we have realised projects with the municipal utilities that they have supported financially." (PL)</p> <p>"Nevertheless, we see economic benefits, particularly in partnerships that explicitly address sustainability. I believe this trend will increase. It will become more difficult to enter into partnerships if a club has no sustainability initiatives to show for itself - also because many partners have to adhere to strict sustainability guidelines themselves." (SW)</p> <p>"Definitely yes. Due to regulatory requirements - e.g. from the EU taxonomy - sponsors will have to invest more in sustainable projects in future. This will also have an impact on partnerships" (SB)</p>	<p>Energy Efficiency and Renewable Integration</p> <p>Mobility</p> <p>Water Conservation and Efficiency Measures</p> <p>Holistic Approach</p> <p>Energy Efficiency and Operational Cost Reduction</p> <p>Increasing sponsorship potential</p>	<p>Football clubs adopt eco-friendly practices like energy efficiency, renewable energy, water conservation, and sustainable transport to reduce their environmental impact.</p> <p>Clubs benefit financially from sustainability initiatives through operational cost reductions and increased sponsorship opportunities</p>

<p>"Our fans expect us to focus on sustainability. Measures such as the included bus ticket in the stadium ticket are well received. But there are also limits: For example, if we were to stop offering bratwurst in the stadium and only offer vegetarian products, there would certainly be protests. Overall, our commitment is perceived positively, but there are different opinions on how far it should go." (SB)</p>	<p>Balancing Sustainability Efforts with Fan Preferences</p>	
<p>"Basically, yes. Fans have high expectations of the club, including in the area of sustainability. Surveys show that fans want the club to go green. But on match day, you often see that vegan bratwurst, for example, is consumed significantly less than the classic pork bratwurst. There is still a fine line between sustainability ideals and individual convenience." (JE)</p>		
<p>"We are also observing that younger target groups in particular, the 'Generation Purpose', are showing an increased interest in sustainable measures. This not only has a positive impact on fan loyalty, but also opens up new opportunities for sponsorship. In our annual brand tracking, we see that commitment to sustainability is a driver for the positive image of the club." (NB)</p>	<p>Sustainability an important aspect for fans</p>	<p>While sport continues to take centre stage, fans are placing more and more emphasis on sustainability initiatives</p>
<p>"I don't believe that sustainability initiatives win new fans, but they can contribute to stability and identification. This happens on a different level than sporting success. For example, our zero-waste initiative is having an impact. 90% of fans support the measure and almost 50% say it improves their stadium experience. Such results are valid indicators that our positioning is working. Nevertheless, sporting success remains the central issue for fans." (SW)</p>		
<p>"For most fans, the focus is on sport. Sustainability activities are often secondary. However, there are target groups that appreciate projects such as tree-planting campaigns and identify more strongly with the club as a result." (PL)</p>	<p>Sport remains a priority</p>	
<p>"Sustainability will play an increasingly important role, especially with regard to energy costs. It is important to promote multifunctionality - e.g. by using stadiums for different purposes such as schools or offices. Clubs should think outside the box and create added value that goes beyond match day."</p>	<p>Broadening the Scope of Sustainability Initiatives</p>	
<p>"No climate protection, is ultimately unaffordable, also for the business model. At some point, we will no longer be able to guarantee the operation of the stadium due to heat and flooding." (PL)</p>	<p>Recognizing Climate Risks for Business Sustainability</p>	
<p>"Expertise within the associations is a key issue. Experts who are familiar with energy, waste and environmental management are needed to implement efficient strategies." (NB)</p>	<p>Developing Expertise and Operational Efficiency</p>	
<p>"Clubs often lack a long-term focus, as the football business is strongly geared towards short-term success. I believe that clubs would do well to also measure managers against ecological and economic goals and develop long-term strategies for this." (NB)</p>	<p>Overcoming Short-Term Thinking in Football's Business Model</p>	<p>Football clubs must integrate sustainability into their long-term strategy, embracing innovative solutions and operational efficiencies to drive both environmental and economic benefits.</p>
<p>"Sustainability projects must fit in with the club. At x, the forest was an obvious choice. Clubs should act locally in order to achieve a global impact. Sustainability will play an increasingly important role in the next 15 to 20 years." (PL)</p>	<p>Integrating Local Sustainability Efforts with Global Impact</p>	
<p>"In the long term, we see great potential in the digitalisation of the stadium. Projects such as a digital parking system in the forest car park ensure faster and more efficient processes." (JE)</p>	<p>Embracing Technological Innovations for Sustainability</p>	
<p>"We have to set ourselves ambitious targets - even at the risk of failing. At the moment, we often shy away from criticism, for example in the discussion about short-haul flights. But such issues must be part of the public debate. The Bundesliga can act as a role model by setting ambitious targets. That would be a major contribution to society and would position football as a driving force for sustainability." (SW)</p>	<p>Football's Role in Driving Societal Change Through Sustainability Leadership</p>	

Appendix 5: Thematic Analysis Table Fans

First-Order Concepts (direct quotations)	Second-Order Themes (derived themes)	Aggregate Dimensions (superordinate concepts)
"Unfortunately, as I emphasized at the beginning, I wasn't really aware that the club is active in this area in terms of sustainability." (MS)	Limited Awareness and Communication of Sustainability Efforts	Fans recognize some sustainability efforts, but desire more information and clearer communication on the club's initiatives.
"Not really. I think fans could definitely be made more aware of this. Sure, it's noticeable that there are no more disposable cups outside the stadium and that RMV tickets are added to the admission ticket to make the journey as environmentally friendly as possible. I think that's good. But overall, there's room for improvement in terms of information." (TS)		
"I once heard that something was done with the lighting to reduce power consumption. But as I said, there could be more focus on that." (TS)	Desire for more information	
"It would be interesting to learn more about the sustainability measures, be it about the stadium technology or initiatives such as the use of electric vehicles." (TS)		
"I think this could definitely be brought more into the focus of the fans... overall, there is room for improvement in terms of information." (TS)		
"But with Eintracht in particular, I would probably be more likely to get such information directly when visiting the stadium if there was a sustainability station, for example." (MS)	Adoption of Sustainable Transportation Practices	Sustainability initiatives, like public transport and merchandise, influence consumer behavior but have limited impact on fan loyalty.
"As for the combined tickets, I use them of course. Before I go to the game, I either take the bike or the train." (MS)		
"Since covid, we've mainly been cycling to the stadium. Before that, we often used public transport and continue to do so." (TS)		
" Many people come by public transport or bicycle. Hardly anyone comes by car." (TS)	Influence of Sustainable Merchandise on Consumer Behavior	
" I would definitely notice that my consumer behavior would be influenced if I knew that the sustainable jersey variant here costs €10 more but is made from sustainable materials." (MS)		
"I remember Eintracht making fishing hats and bags out of old jerseys - projects like that definitely have a positive influence on my consumer	Sustainability's Limited Impact on Fan Loyalty	
"To be honest, not really. For most fans, the focus is on player transfers and the game itself." (TS)		
"The combi-tickets are a nice addition, but I don't think that's the decisive effect on club loyalty." (TS)		
"Yes, I think it's a bit more of a special case for me, because I've been a fan for many years and I wouldn't say that the club's image or fan appeal has been so greatly influenced by sustainability initiatives." (MS)	Fan Expectations for Improved Sustainability Practices	Fans expect better waste management and transport solutions, like car-free match days and combined travel tickets.
"I don't know whether they will. But they should, because football moves large crowds and has a high energy consumption rate." (TS)		
"Yes, rubbish collection points in the block would be a simple measure. I would also like to see car-free match days - that would reduce traffic chaos around the stadium. In general, I would like to see more space for socialising. Combined tickets for away games would also be great to encourage travelling by public transport." (MS)		
"Sustainability is a huge topic in business, and football is a big industry. The resources that are consumed in football make the topic particularly relevant. I believe that a lot needs to be done in the future - for example, by organising special trains to matches, as we		

Appendix 6: Thematic Analysis Table Industry Experts

First-Order Concepts (direct quotations)	Second-Order Themes (derived themes)	Aggregate Dimensions (superordinate concepts)
<p>"Where almost all clubs are doing something is in the area of waste management, i.e. switching from disposable to reusable cups. Other areas are extremely varied: some clubs have photovoltaic systems, others draw green electricity from the grid, which is only a modest effect. In terms of mobility, some clubs integrate public transport into tickets to encourage fans to travel in an environmentally friendly way." (JK 1)</p> <p>"The main topics are fan mobility, catering and recycling. Clubs are trying to motivate fans to travel by public transport or bike in order to reduce their carbon footprint. In catering, the focus is on vegan and vegetarian options as well as reusable rather than disposable crockery, and I've seen fewer sustainability initiatives in merchandising so far. There are more and more ecological labels, but clubs could communicate this better. The major sales drivers are constantly being improved." (JK_2)</p>	Sustainability Initiatives implemented by Football Clubs	Clubs are adopting environmentally friendly practices such as energy efficiency, waste management and sustainable transport. Drivers of sustainability include external pressures such as regulations and stakeholder expectations.
<p>"Another point is that guidance is offered through these organisations, for example lectures to create awareness, sensitisation to the topic, as well as workshops that are passed on internally to the respective clubs and expert referrals to provide support in the advisory context." SP</p> <p>"Furthermore, this sustainability initiative is moving towards anchoring this in the licensing conditions imposed by the DFL. The topic of sustainability has been made a permanent activity in which the respective Bundesliga football clubs must commit to certain areas and demonstrate how they are taking sustainability into account. This is then documented using evidence such as key figures or KPIs." (SP)</p>	Sustainability Drivers	
<p>"At some point I had to learn to understand that all projects or ideas that are to be realised have to be financed. And as soon as they can no longer be financed or are not self-sustaining, they will disappear, so all other social and ecological projects - campaigns, initiatives, names - are only justified if they are economically viable somewhere." SP</p> <p>"Yes, clubs invest in photovoltaic systems, for example, which pay for themselves in six to seven years. But the clubs do not publish specific figures. Assumptions are made that such measures are economically viable in the long term. There is hardly any transparency, except for lighthouse projects, which are often only roughly communicated." (JK 1)</p>	Financial Benefits through Sustainability	Financial Impact refers to how sustainability initiatives drive financial benefits for football clubs, including cost savings and new sponsorship opportunities, while balancing regional identity with global sustainability goals.
<p>"Both are possible. However, cost savings are rarely the main driver. However, sustainability can create new sources of income - e.g. through partnerships with ride-sharing apps or sustainable packaging that can be used as advertising space." (JK 2)</p> <p>"The second point that comes to mind is TSG Hoffenheim's sustainable sponsorship concept - responsible sponsorship, as it's called in the new German language. Stefan Wagner and Sports for Future played a leading role here. The idea is that every partner within TSG Hoffenheim must commit to one or more projects, which can be either ecological or social." (SP)</p>	Cost Savings are not the Main Driver	
<p>"The special thing about this is that companies that get involved in such a concept not only use the association's communication platform, but can also directly support social or ecological projects, which is a sustainable commitment that can also have a positive financial impact, as it offers clear added value for the sponsors. At the same time, it strengthens the organisation's public image." (SP)</p> <p>"No, I don't see a clear trend here. There are a few examples, such as JobRad at SC Freiburg, but these are exceptions. In most cases, sponsors are more concerned with regional identity than sustainability." (JK 1)</p>	New Partnership Potential	
<p>"Not really yet. Sustainability is often a 'hygiene factor' - companies expect organisations to address the issue, but it is rarely the main reason for sponsorship. Nevertheless, sustainability can tap into budgets from CSR departments and enable new partnerships." (JK 2)</p> <p>"The fans reflect society. Around 20-25% are interested in sustainability, similar to the population as a whole. The topic is no more important for football fans than for other social groups." (JK 1)</p>	Regional Identity over Sustainability	
<p>"However, I would add that this effect can vary depending on the target group. For some fans, sustainability is essential, while others are more concerned with design or price. Nevertheless, sustainability should become the norm in the long term." (SP)</p> <p>"Fans are increasingly demanding sustainability. But partnerships need to be communicated well to avoid criticism - for example, when an oil company presents itself as a sustainability partner. This can trigger negative reactions if it does not come across as authentic." (JK 2)</p>	Fans as a cross-section of society	Fans are a cross-section of society, highlighting the diverse interest of football fans in sustainability. However, it is a growing trend and reflects the demand for sustainability in football.
<p>"Let's take the example of jerseys: if a club launches a sustainable jersey on the market, perhaps made from recycled materials, this has a double effect. On the one hand, the club shows that it is taking responsibility, and on the other, it appeals to a target group that values sustainability." (SP)</p>	Sustainability as a growing trend	
<p>"I believe that the willingness of many clubs is growing, also due to external pressure - be it from fans, sponsors or legal requirements. At the same time, a lot depends on the resources available. A small club in the third division has different priorities than a Bundesliga club. Nevertheless, even smaller measures, such as LED lighting in the stadium or recycling programmes, can make a big difference." (SP)</p> <p>"Yes, but only through external pressure, such as licensing requirements. Clubs rarely act out of ethical conviction, but because it is economically viable or prescribed. Sustainability would have to come from an inner conviction in order to have a real impact." (JK_1)</p>	External pressure through licensing as an important driver	The willingness of clubs to take sustainability initiatives often depends on external factors such as fans, sponsors or legal requirements. Long-term trends such as the circular economy and new partnerships are becoming increasingly important in the football industry
<p>"The current political and economic situation is slowing down development somewhat, e.g. due to inflation and other priorities. Nevertheless, I see long-term trends such as the circular economy, the promotion of diversity and climate adaptation. Sustainability is becoming more differentiated and partnerships are becoming more specialised. New service providers from the sharing economy could improve fan mobility, for example." (JK 2)</p>	New ways to integrate sustainability	