



Održivost na velikim sportskim događajima – slučaj Super Bowla

Sustainability in Major Sporting Events – The Case of the Super Bowl

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Sažetak—U ovom radu istražili smo čitav spektar napora koje preduzima Super Bowl – godišnje šampionsko finale američke Nacionalne fudbalske lige – kako bi uskladio svoje prakse i standarde sa zahtevima održivosti povezanim sa korporativnom društvenom odgovornošću. Rad započinje uvodom u pojam Super Bowla, nakon čega slede statistički podaci o njegovoj posećenosti i diskusija o ekološkim uticajima ovog spektakla, kao i drugih sportskih mega-događaja. Nakon toga smo prikazali sve mere koje organizatori Super Bowla preduzimaju radi smanjenja zagađenja, kao i napore oglašivača koji učestvuju na tom događaju. Na kraju smo analizirali izazove i kontroverze vezane za "zelene" inicijative Super Bowla i dali smernice za dalja istraživanja ove teme u akademskim krugovima.

Ključne riječi – Super Bowl, održivost, korporativna društvena odgovornost, ekološki uticaj, održivo oglašavanje

Abstract – In this paper, we explored the full range of efforts undertaken by the Super Bowl – the annual championship game of the American National Football League – to align its practices and standards with the sustainability requirements tied to corporate social responsibility. The paper opened with an introduction to the concept of the Super Bowl, followed by its attendance statistics and a discussion of the environmental impacts associated with this spectacle and other sports mega-events. Next, we presented all the measures undertaken by Super Bowl organizers to reduce pollution, as well as the efforts made by advertisers participating in the event. Finally, we analyzed the challenges and controversies surrounding the Super Bowl's green initiatives and offered guidelines for further research on this topic within academic circles.

Keywords – Super Bowl, sustainability, corporate social responsibility, environmental impact, sustainable advertising

I. INTRODUCTION

Established almost six decades ago, namely in 1967 [1], the Super Bowl, the annual championship game of the NFL (National Football League), is a leading sports event in terms of attendance and the revenue it generates. [2] Much like other high-profile sports events (like the Olympic Games and the FIFA World Cup), the Super Bowl is often classified as a sports mega-event, meaning that it pulls in massive audiences and attracts widespread attention. [3]

Although American football is still primarily played within the United States and only sporadically elsewhere, the Super

Bowl is broadcast all over the world with surprisingly great success. The total number of Super Bowl 2022 viewers was estimated to be more than 208 million, with 130 countries having purchased the rights to stream the aforementioned spectacle. [4] Given that the influence of the NFL's grand finale extends well beyond sports and into mainstream culture [1], numerous interest groups are rightfully pressuring its organizers to bring their actions in line with the current norms of social responsibility. [2]

Social responsibility is a significant element of the Super Bowl because, as previously mentioned, the NFL finals is not only a televised spectacle but also an immensely popular live event whose huge audience inevitably leaves a lasting environmental impact. Most scientific papers about the Super Bowl focus on its direct contributions to the economy of the United States, but some limited studies also explore its indirect effects on local companies, hospitality and the urban environment, and also on infrastructure and the host cities' overall legacy. [1] The idea behind this paper was to go one step further and outline all the steps that Super Bowl organizers are currently taking to keep their policies and activities up to the latest sustainability standards.

II. ENVIRONMENTAL IMPACT OF MEGA SPORTS EVENTS

The massive scale of mega sports events creates many practical problems related to their organization. Authors Atalay and Švagždienė noticed that, with sport growing every day as an industrial area, it is necessary to discuss the topic of environment-friendly construction in this area, as well as to turn to energy obtained from renewable sources. [5] Connecting sports with sustainable practices is extremely important because massive sports events always make a large environmental impact due to how much they use, and often even misuse, natural resources. It has been calculated that each person has approximately seven times larger ecological footprint on days when they travel to watch a sports match live than during normal daily activities [6], and the arrival of tens of thousands of fans to high-profile events inevitably leads to higher energy demand, more waste, and increased pollution from transport. In fact, one study discovered that, in the context of sports mega-events, spectator travel to the venue is the biggest source of greenhouse gas emissions. [7]

Awareness of the necessity to protect the environment and natural resources is growing every year, with more and more people worrying about the possible long-term consequences of mega sports events. Even the United Nations gave attention to this issue and, back in 2001, published a study about Sustainable Sport Management, which stated that the most common negative effects of sports events are the use of non-renewable and natural resources, greenhouse gas emissions, damage to the ozone layer, creation of waste, and pollution of soil, water, and light, among other things. [8]

The Super Bowl is one of the largest environmental problems in sports, with statistics showing that, in 2021, commercials aired during the game generated about 2 million tons of carbon dioxide, an amount normally created by around 100,000 Americans. [9] In 2024, this mega-event had approximately 72,000 spectators, and more than 1,000 of them arrived by private jets, which inevitably made travel emissions much higher. [9] Furthermore, it was projected that the Super Bowl would generate about 2,000 tons of food waste. [9]

III. SUSTAINABILITY INITIATIVES AT THE SUPER BOWL

Since the Super Bowl has a big impact on the environment, it is not a surprise that the organizers of this sport mega-event have made many efforts to include sustainability practices. Already in 1993, the American National Football League started a full sustainability program called the NFL Green initiative, which has five main programs – managing solid waste, reusing materials, recovering food, donating sports equipment and books, and lowering greenhouse gas emissions. [10] Super Bowl is held in a different place every year, and all host cities are required to work together with the NFL to put its sustainability program into action.

Past Super Bowls have pioneered different green initiatives, many of them with excellent results. For example, the NFL and its partners at Super Bowl XLVI (held in 2012 in Indianapolis) organized a “greening” program that prevented about 642 metric tons of CO₂ emissions through measures like recycling at the venue, collecting electronic waste, and planting trees in the city. [11]

At Super Bowl XLVII (held in 2013 in New Orleans), the NFL worked with Entergy and the Center for Climate and Energy Solutions to start the “Geaux Green” initiative, whose goal was to lower the event’s carbon footprint. [12] The idea was to offset all energy use at game venues and team travel emissions by investing in projects that reduce carbon, while at the same time, the fans were prompted to calculate and offset the carbon from their own travel to the game with an online tool, where Entergy matched every dollar they paid. [12]

During Super Bowl LII (held in 2018 in Minneapolis), the NFL, together with PepsiCo, Aramark, and other partners, achieved a “zero-waste” goal by stopping 91% of all waste from more than 67,000 fans from going to landfill, thanks to strong recycling and composting work. [13]

At Super Bowl LIV (held in 2020 in Miami), the organizers made huge efforts to save unused food by cooperating with food rescue charities instead of throwing away leftover concessions and catering items, and because of that, more than 30,000 pounds of extra food were collected and donated. [14]

At Super Bowl LVI (held in 2022 in Los Angeles), the NFL and the Host Committee worked on community projects to help the local environment, and during NFL Green Week, they planted trees in urban parks, made community gardens to help with food security, and also helped to restore a coastal kelp forest in California. [9]

Super Bowl LIX (held in 2025 in New Orleans) continued with the sustainability agenda by carrying out many green actions, which were organized by the NFL together with the local host committee. These actions included donating resources such as materials and food, placing 200 more recycling bins and adopting behind-the-scenes waste organization, as well as organizing two zero-waste events and switching to renewable power sources. [15] The carbon tracking system contributed to planning additional strategies for emission reduction. [15] The NFL also asked Super Bowl fans to help by using public and active transport in the city, and to support recycling by sorting waste correctly and making sure that recyclables are empty, clean, and dry. [15]

IV. SUSTAINABILITY IN SUPER BOWL ADVERTISING

For more than twenty years, the price of advertising during the Super Bowl has kept climbing, reaching its peak in 2025, when companies paid around eight million dollars for just 30 seconds of airtime during the game’s breaks. [16] Advertisers’ willingness to make such massive investments comes down to two things. First, the sheer size of the audience. The Super Bowl 2025 pulled in 127.7 million viewers across the U.S., counting both those watching on TV and those streaming online. [17] Second, and just as important, is the Super Bowl’s unique ability to reach a wide range of demographic groups. [18]

Marketing at the Super Bowl is becoming very much aligned with the NFL’s sustainability goals, which means that many advertisers are choosing to promote their green projects and eco-friendly product features during the event. One of the first notable examples was Audi’s promotion of clean diesel technology in 2010, presented through a humorous ad featuring “Green Police”. [19] Then, at the 2018 Super Bowl, Budweiser Beer ran an ad named “Stand by You”, which presented the pluriannual Water Donation Program of their parent company – Anheuser-Busch brewery. [20] The ad showed Budweiser brewers’ employees working with activists from the American Red Cross on delivering emergency drinking water, which they have done for many years as partners in disaster-relief efforts. [20] During the 2020 Super Bowl, the company Michelob ULTRA brought up the issue that less than 1% of U.S. farmland is organic, also pointing out how tough it is for farmers to shift over to more sustainable methods. [21] In that ad, they promoted the 6 For 6-Pack program of their Pure Gold organic beer, which meant that for each six-pack sold, the company would convert six square feet of American farmland back to organic. [21] General Motors, as part of its plan to stop selling gas-powered cars by 2035, had two ads during the 2021 Super Bowl, both promoting electric-powered vehicles and electric-car ownership. [22] Another example of sustainability-related advertising was Hellmann’s 2022 Mayo ad that encouraged Super Bowl viewers to stop wasting food and start making better choices when it comes to consumption. [23]

Several advertisers at Super Bowl 2025 also put issues related to sustainability in the focus of their commercials – PETA illustrated how violent the leather and wool industries can be, Lay's highlighted multigenerational farming families, and Science Moms issued climate crisis-related warnings. [24] Also, Ram Trucks displayed their plug-in hybrid pickup that produces far less pollution in contrast to traditional petrol trucks and Jeep presented a hybrid car that can drive roughly 22 miles (around 35.4 kilometers) on all-electric power. [24]

One study analyzing advertising at the Super Bowl discovered that the number of commercials featuring elements of corporate social responsibility has not been constantly increasing over the years [25], contrary to the ever-growing sustainability efforts of the NFL itself. A review of 587 ads showed that the percentage of those that included corporate social responsibility first increased and then decreased over the ten years in question with the decrease starting after 2020 through 2024, which the author argued could be due to the COVID-19 pandemic as well as the rise of cancel culture, both of which may have discouraged companies from producing ads promoting socially responsible business practices. [25]

V. CRITICISM OF THE SUPER BOWL'S SUSTAINABILITY STRATEGY

The NFL has heavily publicized its sustainability-related work, often stating that, because of the great success of the league's Green program, the Super Bowl is now seen as the greenest professional sports event in the United States. [26] At the same time, many critics doubt that this reputation is rightfully earned and accuse the authorities and stakeholders behind the Super Bowl of greenwashing, claiming that their care for environmental issues is driven purely by marketing motives and that the outcomes of all their campaigns pale in comparison with the vast environmental harm that the championship game of American football is causing year by year.

The term greenwashing is complex and therefore difficult to explain. Authors Ruiz-Blanco, Romero, and Fernandez-Feijoo have noticed that all definitions of this phenomenon have one thing in common – they emphasize the difference between two behaviors, such as the intention to gain a reputation and real sustainability performance, or symbolic and substantive actions, or symbolic communication and non-substantive actions, or low corporate social responsibility performance and high communication standards. [27] According to Zhang et al., greenwashing can be defined as an act of false environmental protection propaganda and self-dressing by enterprises, a behavior which the authors qualify as a form of “pseudo-environmental responsibility”. [28]

Academic papers still don't focus much on checking if the Super Bowl's sustainability actions are really justified, but some environmental organizations have stated that the green practices at mega sports events hardly reduce the total pollution generated by tens of thousands of visitors and huge energy consumption. One analysis put it bluntly: many of the NFL's green activities during the Super Bowl are “little more than feel-good media splashes” with sponsors and nonprofits, while the “difficult work of decarbonization” is left for future years. [29] Critics have also strongly condemned the decision of the Super

Bowl organizers to accept Chevron – one of the biggest oil and gas companies in the world and one of the leading climate polluters – as a sponsor of its volunteer ambassador program, which is responsible for welcoming hundreds of thousands of football fans attending the game. [30] Those who question the authenticity of the Super Bowl's environmental efforts also point to the fact that Entergy – a founding partner of the 2025 Super Bowl Host Committee – is not only an energy utility company but also takes active part in the oil and gas industry. [30]

At this moment, assessing whether the Super Bowl's sustainability efforts are really honest or just part of a well-organized PR strategy is very difficult, as most scientific papers look at single case studies instead of long-term research, and many of them focus on a specific moment – before, during, or just after the event –resulting in limited information about results in the long run. [31]

VI. CONCLUSION

The goal of this paper was to present and analyze all sustainable development-related activities that are being realized within the Super Bowl. After examining the examples of the practical application of many environmental initiatives that are part of the NFL Green environmental program, we concluded that the Super Bowl will undoubtedly continue to publicize its ecological commitment, inevitably coming up with more creative ways to tackle sport-related pollution.

The research has also shown that it is very difficult to see the true impact of the already referenced Super Bowl's green initiatives and to determine if the greenwashing accusations hold weight, as such study would have to be based on detailed, longitudinal environmental analyses. So far, academic literature has largely avoided addressing this complexity, focusing instead on the Super Bowl's vast marketing impact or sports-related outcomes. Therefore, we consider that future academic research should be directed towards a more detailed examination of this problem, with particular attention to identifying all the long-term environmental and social impacts of the Super Bowl's sustainability initiatives. Furthermore, it can be stated that, if the Super Bowl organizers wish to decrease criticism, they should, in the future, place greater emphasis on the area where the weakest results have been recorded - namely, the pollution caused by spectator travel.

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