

Professional Sports Compete to Go Green

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Sports, professional and amateur, can have a major impact on our environment, including: land use, power consumption, construction of event facilities and venues, consumption of water and other natural resources. Professional sports teams and leagues have recognized the importance of reducing the negative impact their activities and facilities have on the environment, and began implementing sustainable programs and actions a decade ago. This paper investigates green initiatives of major league sports teams and examines the information regarding sustainable actions posted on their individual team website. Results identify categories of sustainable initiatives and compare the data across different sports.

INTRODUCTION

Sustainability has taken a prominent position on many corporate agendas. While many initiatives focus on conservation, recycling and compliance, sustainability has come of age in recent years, to the point that companies now report their actions, and in many instances attempt to influence their customers as well as the public about how to be “greener.” Corporations often struggle with relaying the importance of sustainability efforts to consumers. Since sports activities and venues can have a major impact on the environment, there is a natural link between sports and environmental conservation. Professional sports teams have embraced environmental stewardship and encouraged fans as well (Henly, Hershkowitz, & Hoover, 2012). Because professional sports have a strong connection with the fans, major league sports teams can influence fans’ green behavior, both at sporting events, and within the community. The focus of this research will be to examine the progression and development of sustainable actions of major league professional sports. The research will then examine data collection results of what each major league sports team has posted on individual team websites regarding green initiatives.

WHY TEAMS GO GREEN

Dr. Allen Hershkowitz, director of the Natural Resource Defense Council’s (NRDC) green sports project, said “the motivation for sports to engage in greening is simple, the games we love today were born outdoors, and without clean air to breathe, clean water and a healthy climate, sports would be impossible,” (Henly, et al., 2012, p. 9). The physical requirements of professional sports venues can negatively impact the environment, including new facilities, changes to city infrastructure, increased waste, pollution, and high energy consumption. The two goals of the environmental movement are to

reduce the ecological footprint of sports activities, and establish an awareness of environmental issues, both of which hold great potential to significantly impact our future environment (Schmidt, 2006). Professional sports teams continue to build their green efforts and the results attract sponsors, build community connections, create a competitive advantage, and enhance the fan experience. Not all reasons for going green are noble, as there can be economic and financial reasons as well. For example, Scott Jenkins, vice president of ballpark operations for the Seattle Mariners stated that reasons to go green “support a triple bottom line,” giving the team “an opportunity to drive financial performance, reduce costs, and green their brand; which allows for the ability to sell to more people and build a deeper relationship with customers” (Henly et al., 2012, p. 49). These environmental efforts give business an opportunity to do the right thing, by standing for change and environmental commitment (O'Brien, 2011). As the green movement is embraced by professional sports teams, they often address their efforts as a competition with other teams, just another aspect of the competitive nature of professional sports (Henly et al., 2012). This was evident when the Atlanta Hawks vied with the Miami Heat to be the first NBA team to have a LEED-certified home arena (Henley et al, 2012, p.98.). Another perspective was presented by Scott Jenkins, V.P. of ballpark operations for the Seattle Mariners when he referenced the “importance of statistics and where you are in the standings; that competitive nature and desire to know where you are translates to the environmental side as well,” (Henley et al., 2012, p.50).

RESEARCH ON COMMUNITY AND FAN IMPACT

The prominence and popularity of sports around the globe provides an enormous reach and potential for their actions and message to influence millions of consumers (Miller, 2010). A 2008 survey conducted by Pro Green Sports indicated that 75 percent of fans surveyed felt green products were worth the additional cost and 90 percent of the fans surveyed appreciated the environmental initiative of professional sports teams. Another survey conducted in 2009 by Pro Green Sports indicated sustainability initiatives were a priority to 60 percent of professional sports teams. These findings would indicate that fans as well as professional sports teams support green initiatives and sustainable efforts. Professional sports teams have long been involved with community service, civic engagement, and social well-being. Increasing their sustainability initiatives can be seen as an extension of their social responsibility.

Several authors have used the term environmental social responsibility (ESR) when investigating green actions of sports teams (Babiak & Trendafilova, 2011; Mallen, Stevens, & Adams, 2011; Uecker-Mercado & Walker, 2012). Using the professional sports team’s webpage and additional communication vehicles, corporate social responsibility, including environmental responsibility has become an important component of business operations for these teams. Babiak and Trendafilova (2011) found environmental practices are diffusing rapidly through professional sports. Slightly more than half (57%) of survey participants reported that the emphasis their league placed on environmental initiatives placed this item on the top of their team agenda. However, executives and management indicated strategic and financial performance, rather than conforming to social pressures were at the forefront of their consideration regarding green actions. The authors conclude that while the financial payback to the team is valued, there is still the need to build goodwill with fans and the community. Support of environmental initiatives and promoting green actions has the potential to build the team’s customer base. Promoting sustainability and environmental efforts enables sports teams to connect to the fan because it builds a character for the team that the fans want; once that connection is made they can increase their fan following and create goodwill at the same time (Babiak & Trendafilova, 2011).

Recent research (Inoue & Kent, 2012), found the positive environmental practices of a professional sports team increased consumer internalization of the team’s values, and consumers are likely to show their intentions to support the team’s environmental initiative. Furthermore these consumers indicated that they intended to continue pro-environmental behavior in their daily lives. Specific findings indicated that even if they were not fans of a specific team, consumers were likely to adopt pro-environmental behavior if the team proactively incorporated environmental practices. Thus, professional sports teams can have a significant impact in reaching and influencing consumer adoption of green behavior. Finally, the authors

recommend that sports organizations should incorporate environmental practices in their operations, and communicate these efforts to consumers. By so doing, they expect a broad influence of consumer green actions, which eventually will lead to social change. It is predicted to also benefit the team.

The highly involved nature of sports is intrinsically suited to developing an online community and relationship between the fan and the team (Evans & Smith, 2004). Sports appear to have an advantage when it comes to internet marketing, including stickiness of the sports site, and the ability to hold a visitor for longer, which in turn builds an online community. This provides the ideal opportunity for sports organizations to leverage the Internet and their website to engage consumers and fans, as well as influence green fan behavior. Sports fans can enjoy involvement with the team online via web-streaming, live simulcasts, or via web portals (Hur, Ko, & Claussen, 2012). Since almost two-thirds (61%) of Americans consider themselves to be sports fans (Henly et al., 2012) and attendance at team games can range from 68,000 to 4 million per game, and up to 30 million visitors can view the website in a season, sports teams can leverage their sustainable activities by posting information on their respective teams' websites.

THE GREENING OF PROFESSIONAL SPORTS

A decade ago, 2003, the Philadelphia Eagles were pioneers in the "green sports" movement, when they implemented a green renovation for Lincoln Financial Field Stadium (Henly et al., 2012; O'Brien, 2011). Efforts there included: recycling, solar panel scoreboards, renewable energy sources, fan education initiatives as well as using environmentally friendly paper products. The next year the Natural Resources Defense Council (NRDC) became the principal advisor to all major North American professional sports leagues ("Greening Sports,"). Efforts of the NRDC over the next several years assisted in reducing the environmental impact of stadiums and arenas by commissioning energy, waste and water efficiency audits. Energy conservation efforts continued to focus on several professional sports teams, including solar installation at the Cleveland Indians Progressive Field (Henly et al., 2012) in 2007, 1727 solar panels installed in the LA Clippers Staples Center in 2008 and a five year sustainability plan by the Toronto Maple Leafs Air Canada Center to divert 95% of waste, reduce energy consumption and the carbon footprint by 30%. In 2009 sustainable efforts continued with recycling efforts, but also added "Green Day" events, and public service announcements ("Angels team up with Fox sports west to host 'Green Day'," 2009) to engage fans in the effort. Additionally LEED certification of team facilities included the Minnesota Twins, Atlanta Hawks and the Miami Heat (Henly et al., 2012). The San Diego Padres also received several awards: EPA WasteWise Award, San Diego Partnership Sustainability Award and California Integrated Waste Reduction Award ("Green initiative for Petco Park,").

In 2010 the Green Sports Alliance was founded by Paul G. Allen's Vulcan Inc. and the NRDC ("About Us," 2013), with the mission of helping sports teams, venues and leagues reduce their environmental impact. Also in 2010, continued efforts of professional sports included additional LEED certification for the Houston Rockets Toyota Center, Portland Trail Blazers, and the Pittsburgh Penguins Consol Energy Center. The National Hockey League also launched the "NHL Green" website: www.nhl.com/green, to educate fans and enhance the ecological profile of the league (Henly et al., 2012). In 2011, the L.A. Galaxy Home Depot Center was the first outdoor stadium to receive ISO 14001 certification for their environmental management system. LEED certification of facilities continued, and more activities were initiated which involved fans, including educational programs, collecting and recycling materials, community events and outreach programs.

Major league teams continued in 2012 to gain LEED certification (Henly et al., 2012): Chicago Bears Soldier Field, the first NFL stadium to be certified; Milwaukee Brewers' Miller Park the first stadium with a retractable roof, and the highest certification for environmentally sustainable concession stands, lighting fixtures, and energy efficient scoreboard (Liu, 2013). Other stadiums installed solar panels, solar displays, wind turbines (Progressive Field, Cleveland Indians), as well as purchased paper supplies of recycled content, recycling paper, cooking oil, food waste, and reducing greenhouse gases. Most recently, in 2013, Earth Day-related events included the Oakland A's purchase of renewable energy credits, for a

carbon neutral game (Newman, 2013), e-waste recycling drives, fan rain gauge and Earth Day video giveaways, as well as environmental trivia on scoreboards during games. The Brooklyn Nets also launched the “B” Green program, to engage fans in sustainability efforts at the arena, which included: bicycle racks at the park, support of mass-transit, and recycling. The NBA Green Week was the first ever, week-long green initiative by a sports league. This initiative included: alternate transportation by bicycling to a game, composting, planting flowers and trees, water testing, recycling, and fan education at the game (Henly, 2013).

METHODOLOGY

To determine what information professional sports teams have posted on the respective teams’ website, a trained data collector reviewed a total of 141 team websites for each major league professional sports team during June and July of 2013. There were 30 Major League Baseball, National Basketball Association, and National Hockey League websites, while there were 32 National Football League and 19 Major League Soccer websites. The data collector used search terms on each site related to green activities including: environment, go green, recycle and sustainability. Additionally the site was reviewed for a page or area of pages dedicated to green activities, and web pages containing news items, which might contain relevant information. Each activity or sustainable initiative listed on the individual website was identified by reviewing information posted under team website community events, news archives, sustainability, blogs and other index links connected to the team site. These were recorded verbatim as they were posted online. After data collection, the researchers categorized these individual activities in four categories that were clearly evident: operations, food service, transportation and stadium (facilities).

RESULTS

A total of 113 of the 141 (80%) of the team websites had information posted on at least one sustainable initiative. Activities related to operations included the use of “green” cleaning products, energy efficiency, recycling, publication printing, and waste reduction. The activities identified which related to food service activities included composting, donation of food, purchasing eco-friendly supplies, recycling cooking oil and concession paper products. Sustainable transportation efforts included installation of bike racks or bike parking, alternative transportation or mass transit support, and preferred parking for hybrid or fuel efficient vehicles. Initiatives that related to the stadium or facility included LEED certification, solar or wind power, energy efficient signage and water conservation. The more frequently noted actions are listed in Table 1.

**TABLE 1
FREQUENT GREEN INITIATIVES**

Green Initiatives	Number Teams	Number Sports
Recycling	69	5
Energy efficiency	41	5
Water conservation	25	3
Alternate transportation	15	5
Waste reduction	15	4
LEED	14	5
Food-donated	14	3
Recycled paper products	14	4
Solar	12	4

Twenty teams mentioned carbon footprint, emissions, or offsetting, with half of them citing reduction of the team's carbon footprint. This is less than 15% of all the teams participating in green efforts, but still worth noting. Other actions, such as supporting bike riding, or taking public transportation, and hybrid vehicles could be considered initiatives which also contribute to reduction of emissions and carbon footprint. Individually identified initiatives included eco-friendly products/supplies, LED signage, Field Turf, which reduces water consumption, as well as water reclamation and recycling. Other individually named activities are too numerous to identify in this discussion.

To determine if individual green initiatives were specific to one or more sport, a chi-square test of independence was performed, analyzing individual green initiative actions by sport. Results were statistically significant for one sustainable initiative, water conservation ($\chi^2=10.689$, $df=4$, $p=.03$). Analysis of the cross-tab frequencies found that baseball is more likely to have implemented water conservation efforts and mention energy efficiency in their operations. Baseball and basketball were more likely to mention recycling. Baseball and hockey were more likely to indicate waste reduction, and hockey also cited waste diversion. Baseball and soccer were more likely to use composting in food service actions, while baseball was more likely to recycle cooking oil. Hockey was more likely to donate food, but baseball and basketball also donated food at expected levels.

A second chi-square test of independence tested the four categories of sustainable initiatives: stadium/facilities, transportation, food service and operations, across the individual sports. Results were statistically significant for stadium/facilities ($\chi^2=12.191$, $df=4$, $p=.016$), and transportation ($\chi^2=10.9774$, $df=4$, $p=.027$). Analysis of the cross-tab frequencies indicated that baseball, soccer, and football were more likely to support stadium-related environmental initiatives. Because these sports have outdoor venues, the authors wonder if this could influence their choice to reduce the environmental impact of their stadiums. Further, cross-tab frequency analysis indicated baseball and basketball were more likely to support transportation efforts, while football and hockey were less likely to do so, though not statistically significant.

Chi-square results were not statistically significant for food service and operations initiatives, but cross-tab analysis indicated that baseball and hockey were more likely to employ food service actions, while soccer and football were less likely. Baseball, basketball, and hockey were also more likely to support operations-related environmental initiatives. A third chi-square test of independence was administered to determine if the number of different initiatives in each of the green categories was significant. Results were statistically significant for stadium initiatives ($\chi^2=30.043$, $df=16$, $p=.018$), and cross-tab frequencies indicated basketball was more likely to cite four sustainable stadium initiatives, baseball and hockey three stadium-related initiatives, soccer two actions, and football only one initiative. One baseball team reported seven different stadium-related green initiatives. The results were not significant for the number of actions in operations, transportation and food services.

Every sport had at least one team supporting an effort in each of the four categories identified, however it seems that Major League Baseball is "greener" than the other sports. Major League Baseball is more likely to have enacted environmental initiatives across all categories of sustainable actions. At this point, it appears that baseball has "won" this round of the green competition. Also, sports which use outdoor facilities are more likely to have enacted stadium-related initiatives.

CONCLUSION

There are financial and strategic advantages for going green: monetary savings, local economic growth, improved brand image, competitive advantage, attraction of new clientele and corporate partners (Henly et al., 2012). More importantly, green activities can enhance the fan experience and strengthen community ties. All of these advantages can be leveraged by marketing the team's green actions and activities, and promoting the team's commitment to environmental responsibility. The positive impact of sustainable efforts cited by team executives include attracting positive press and generating publicity, engagement with the city and community, selling to more customers, building deeper customer relationships and brand development, along with enhancing the overall fan experience, all things which

marketing efforts currently strive to accomplish. In conclusion, not only developing sustainable initiatives, but promoting them online and at the stadium via events, and fan-inclusive actions, position the team as a socially responsible corporate partner in the community and engage fans and build enthusiasm.

LIMITATIONS AND FUTURE RESEARCH

This study is exploratory in nature, and only investigated the sustainable actions reported on the professional league team websites. This in all likelihood does not include an exhaustive list of the green initiatives these teams are employing. While previous research indicates green actions of sport teams positively influence their reputation with fans, and encourage fans to be green, this study did not investigate the influence of team green actions on fans' personal environmental behaviors. Further research could investigate if fans adopt green behavior in their daily lives.

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