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### How does competitive balance in international soccer relate to the fluctuation in attendance

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# How does competitive balance in international soccer relate to the fluctuation in attendance

## Abstract

Competitive balance is a contributing factor in the fluctuation of attendance in international soccer. The importance of this research was to show soccer organizations that competitive balance had some sort of relationship with the attendance of these games. Another reason why this study was important was because it developed further knowledge on this topic. Before conducting this study prior research was done that showed that competitive balance is not the only factor that plays into the fluctuation of attendance. The timing of the games, economy, and certain preferences of the fans were other factors that played in a role in the fluctuation of attendance (Laverie & Arnett, 2000; Parry, Jones & Wann, 2014). The sample of this study was made up of five teams from the Barclays Premier League, Bundesliga, and LigaBBVA. They were chosen based on attendance capacity. A random number generator was used to determine the ten home games that were looked at for each team. A correlation was run to help show if there was a relationship between competitive balance and attendance. The correlation showed that there was a weak significant relationship between competitive balance and attendance. Overall, these findings are significant because they showed that competitive balance does not have a strong relationship with the fluctuation of attendance in international soccer

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How does competitive balance in international soccer relate to the fluctuation in attendance?

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### **Abstract**

Competitive balance is a contributing factor in the fluctuation of attendance in international soccer. The importance of this research was to show soccer organizations that competitive balance had some sort of relationship with the attendance of these games. Another reason why this study was important was because it developed further knowledge on this topic. Before conducting this study prior research was done that showed that competitive balance is not the only factor that plays into the fluctuation of attendance. The timing of the games, economy, and certain preferences of the fans were other factors that played in a role in the fluctuation of attendance (Laverie & Arnett, 2000; Parry, Jones & Wann, 2014). The sample of this study was made up of five teams from the Barclays Premier League, Bundesliga, and LigaBBVA. They were chosen based on attendance capacity. A random number generator was used to determine the ten home games that were looked at for each team. A correlation was run to help show if there was a relationship between competitive balance and attendance. The correlation showed that there was a weak significant relationship between competitive balance and attendance. Overall, these findings are significant because they showed that competitive balance does not have a strong relationship with the fluctuation of attendance in international soccer

## Introduction

International soccer attendance has been affected by factors such as fan behavior and competitive balance. The timing of the games, economy, and certain preferences of the fans have been variables that were examined to determine the relationship that fan behavior has on attendance (Laverie & Arnett, 2000; Parry, Jones, & Wann, 2014). Competitive balance was a factor that affected the attendance rates based on certain studies that were done. Fan behavior and competitive balance have related to soccer internationally when it comes to attendance, but the studies done by researchers have helped to communicate and provide explanations for why attendance has been fluctuating. These concepts were studied and evaluated, which developed a clearer understanding of the relationship between fan behavior, competitive balance, and attendance.

This research is beneficial to the academic community because it shows how fan behavior and competitive balance relates to attendance rates of international soccer events. Also, it is beneficial to the academic community because it further develops knowledge on this topic. On the other hand, this research had a practical application because it gave teams and organizations a sense of what is affecting their attendance to drop or rise. The body of knowledge has expanded due to the use of studies, and research done that confirmed or made new conclusions about fan behavior, competitive balance and attendance.

The purpose of this study was to determine how fan behavior and competitive balance impacts attendance in international sport. The research question for this study was:

How does competitive balance in international soccer relate to the fluctuation in attendance?

The aim of the research was to develop a deeper understanding of how certain factors affect attendance numbers in international soccer.

## Literature Review

### Fan Behavior

Fan Behavior has been described as going to a sporting event because a favorite team is playing, the event quality, certain involvement, attachment, and satisfaction fans have when attending games (Laverie & Arnett, 2000). According to Parry, Jones, and Wann (2014) English Premier League fans were more attached to their favorite team which led to them attending games in which their team was playing. Foroughi, KhairulAnuar, Nikbin, and Sunghyup (2014) conducted a study that looked at 260 random spectators who attended Iranian Premier League soccer matches, and the results gathered showed that event quality had a significant impact on fan satisfaction. This was important because higher fan satisfaction means fans were more apt to buy tickets and attend these matches (Foroughi, KhairulAnuar, Nikbin, & Sunghyup, 2014).

End, Dietz-Ulher, and Demakakos (2003) conducted a study that examined how people perceived fans that were basking in reflected glory with a team that they are identified with. The results showed that fans that practiced BIRGing were perceived as being significantly less of a fan than those that exhibited constant behavior. End et al. (2003) stated that those fans that demonstrated a more constant behavior were more likely to attend games than those fans that reacted when their team was performing at a high level. Similarly Ware and Kowalski (2012) conducted a study that compared the differences of males and females in sport fan behavior. Ware and Kowalski (2012) found that gender differences were very few and that a sports fan level of involvement is the strongest determinant of whether or not they practiced BIRGing/CORFing. High involvement in the team was more likely to occur when BIRGing, or CORFing after a loss/win regardless of gender (Ware and Kowalski, 2012). In contrast to what End et al (2003) stated about how if fans were BIRGing or CORFing they were less likely to be a

true fan and would be less inclined to attend games, Ware and Kowalski (2012) stated that fans can be more likely to attend sporting events if they practiced BIRGing or CORFing because that means they were true fans and were associated with that team.

On the other hand, Parker and Fink (2012) conducted a study that looked at how team's sponsors affected fans if there was a negative reputation. The results showed that highly identified fans have significantly more positive attitudes towards the team sponsors compared to the fans that are lower in identification (Parker and Fink, 2012). The research done by Parker and Fink showed that fans that were more identified with one team were more likely to stick by the team, support them, and continue to attend the games. Fans that were less identified with a team would move away from the team, and start following another team that they felt strongly for. After looking at this study it was safe to say that negative sponsors have a relationship with the attitudes of the fans.

### **Competitive Balance**

Competitive balance is two teams being equal or two teams being a mismatch when they played each other, and if there was uncertainty about the outcome. Pawlowski and Budzinski (2013) examined the importance of competitive balance for attendance for TV viewers in European professional football. The results from this study showed that there was a tipping point threshold value of competitive balance that exists and that crossing that threshold led to massive demand reactions (Pawlowski & Budzinski, 2013). Also, according to Pawlowski and Budzinski (2013) more than 50% of the respondents were willing to pay to either improve or maintain the current degree of perceived competitive balance in the corresponding national league. The average value of going to a Danish League match was around three euros, but fans were willing to pay more than five euros to go because the perceived competitive balance of

those matches was high (Pawlowski & Budzinski, 2013). Pawlowski & Budzinski (2013) study was important because it showed the relationship between competitive balance and fan attendance. Lenten (2009) conducted a study that used an actual-to-idealized standard deviation ratio, and average match attendance in the Australian Football League from 1945-2005. Some of the results were that when there was improved competitive balance there was a higher match attendance. Lenten's (2009) study provided more information about competitive balance and the effect it has on attendance. David Forrest, James Beaumont, John Goddard, and Robert Simmons (2005) conducted a study that examined the relationship between attendance and match level uncertainty in the English Football League. The study consisted of taking a sample of the English Football League matches and using a statistical model to simulate the matches to determine what would happen to the aggregate seasonal attendance if all clubs in the division were somehow equal strong in playing ability, rather than mixed ability (Forrest et al., 2005). Results of the study stated that they were controlling for other influences on attendance, and audience size increased, as the value of the probability ratio lowered towards one (Forrest et al., 2005). Also, the results showed that extrapolating to the whole season, and constraining teams to the same ability ultimately lowered the aggregate attendance for the season by well over two million across the league (Forrest et al., 2005). The importance of the study was that by controlling for all the factors, and making the competitive balance equal it hurt the league over the course of the season with attendance rates (Forrest et al., 2005). Another article written by Vani Boorah and John Managan (2012) can relate to previous articles because this article stated that by proposing a general measure of competitive balance based on the generalized entropy approach to measuring inequality, and showed how this might be interpreted in terms of the league's welfare. The results showed that there was a high level of popularity with the English Premier League



even though there was a low level of competitive balance (Boorah & Managan, 2012). In comparison, Hogan, Massey, and Massey (2013) conducted research that examined factors that influenced match attendance in the three main European rugby union leagues. They studied looked at 4,000 fixtures over the past 15 seasons that was analyzed to come up with some conclusions (Hogan, Massey, and Massey, 2013). The results showed that the majority of attendees at events were primarily the home teams fans, and if the teams were out of competition fans would be less inclined to go (Hogan et al., 2013). Furthermore, short term-medium term competitive had a large and statistically significant effect, however the effect was smaller in magnitude than the effect brought about by the other aspect of the fixture with the strength of the home team being the single most important influence on attendances (Hogan et al., 2013). Hogan et al. (2013) study gives a clearer understanding of how competitive balance affected the attendance of sporting events in Europe.

### **Conceptual Framework**

Fan behavior has been perceived as going to a sporting event because your favorite team is playing, the event quality of the game, involvement, attachment, and satisfaction of the fans. (Laverie & Arnett, 2000). The operationalized definition of fan behavior is measuring what factors go into fans attending international soccer games. Event quality, involvement with the team, attachment, and satisfaction are all variables that were measured when talking about fan behavior. These variables are measured by conducting surveys, or questionnaires that asked the fans why they attend games.

Competitive balance is two teams being equal or two teams being a mismatch when they played each other, and if there was uncertainty or certainty of the outcome. If one team was

better than another the competitive balance would be low but if both teams were similar in skill the competitive balance would be higher.

Some of the variables that can be looked at when describing these concepts are branding of different international sport organizations, the timing of the matches, and the economy. The branding of different international sport organization is a variable that is used in this study because if teams have a strong brand image they are more likely to have a high attendance because fans have a strong connection. This variable cannot be measured because it is hard to find data on branding that could provide a conclusion. Next, the timing of the matches is a variable because matches that are played on a weekday are less likely to attract fans compared to if a game was played on a weekend day. This is because fans have to work, and it was hard for them to get out of work to attend. This variable can be measured by looking at attendance numbers for a variety of teams and study the attendance for weekday games and weekend games and compare them to come to a conclusion. An intervening or confounding variable that is taken into consideration is stadium size. Stadium size is important because each stadium varies in size. Also, weather is another intervening variable because it was practically impossible to measure it. Finally, the economy is a variable for this study because fans that are not financially stable are not going to attend games because ticket prices are unaffordable compared to fans that are financially stable and could afford the ticket prices. This variable can be measured by looking at ticket prices for past matches and seeing how attendance changes to high-ticket prices compared to low-ticket prices, and based off these observations, come up with a conclusion.

In summary, fan behavior and competitive balance are the two main concepts that are looked at to determine how attendance fluctuates over the course of a season. Furthermore, the research that has been conducted prior has shown that certain variables need to be taken into

consideration. Overall, these variables created a relationship with the concepts because are the gatekeepers to the research being successful.

### **Methods**

The purpose of this study was to determine how fan behavior and competitive balance impacts attendance in international sport. The research question for this study was:

How does competitive balance in international soccer relate to the cause fluctuation of attendance?

The design of the research showed that a cross sectional design was the most effective to prove the results that came from the research. By using a cross sectional design it was easier to determine the relationship between competitive balance and attendance. The key informant sampling technique was another important aspect of determining the design and how the sample was collected.

The desired sample of this study looked at the upper-echelon leagues of international soccer. Five teams based on attendance capacity from the Barclays Premier League, Bundesliga, and Liga BBVA were selected for the 2013-14 season.

### **Data Collection**

For the study sources such as ESPN.co.uk, the Barclays Premier League, the Liga BBVA, and the Bundesliga websites were accessed in order to find the data necessary to conduct the study. The data that was obtained for the study was secondary, and quantitative. The procedure that was conducted for the study consisted of looking at average attendance, the max attendance, and the attendance capacity for each team within the three leagues. After finding the data for each team within the three leagues, the five middle teams from each league were selected to make up the study. Then, a random number generator ranging from 1-19 determined what home

games were going to be examined. A total of ten home games were looked at for each team. Next, after finding these ten home games the competitive balance of these games were measured in order to prove the research question. To find competitive balance the home team win percentage was subtracted by the away team win percentage at the time of each of the game, and the closer the result was to zero, the more competitively balanced the game was. The study conducted did not ask any questions because the study was looking at secondary data, and did not conduct a survey or questionnaire.

After finding the data, a correlation was used to prove the research question. A correlation was a good fit for the study because it helped show the relationship between the two continuous variables, competitive balance and attendance. Also, the study did not require the use of any descriptive statistics. Overall, by using this test a clearer answer of if competitive balance really has a fluctuation of attendance in international soccer was given.

### **Results**

The data for this study was primarily gathered from [www.espn.co.uk](http://www.espn.co.uk). This source provided information that was vital for the success of this study. The data for this study consisted of a 150 European soccer home games across three separate leagues. Each league consisted of five teams, and ten home games chosen at random for each, which therefore led to fifty home games per league (Barclays Premier League, n =50; LigaBBVA, n =50; Bundesliga, n =50). One characteristic about these teams is that they were primarily the average team in their respected league. Also, the sample that was chosen was the teams that did not reach capacity in terms of attendance. The sample for this study was not a clear representation of the population due to the fact that only a third of the teams from each league were chosen, but this was done intentionally to avoid any skewed data from the top and bottom teams of each league.

Descriptive statistics were looked at to give a basic understanding of what was found. The mean of away team win percentage ( $M = .48$ ,  $SD = .22$ ,  $n = 150$ ) was greater than the mean of home team win percentage ( $M = .45$ ,  $SD = .20$ ,  $n = 150$ ). Attendance per game had a minimum of 7,000 and a maximum of 51,000, which led to a mean ( $M$ ) of 29,441 and a standard deviation ( $SD$ ) of 10,601.55. Max attendance showed that there was a minimum of 15,489, a maximum of 55,000, a mean ( $M$ ) of 34,536, and a standard deviation of ( $SD$ ) 11,558.09. Another variable in the study that was looked was attendance capacity. Attendance capacity had a minimum of 22.01, a maximum of 100.09, a mean ( $M$ ) of 85.94, and a standard deviation ( $SD$ ) of 16.82. Furthermore, the mean of competitive balance of the games looked at was a mean ( $M$ ) of -.03, a standard deviation ( $SD$ ) of .25, and an  $n$  of 150.

After looking at descriptive statistics a correlation was conducted that provided further analysis for the study. There was a weak significant relationship between the attendance per game and the competitive balance of each games that was looked at ( $r = .048$ ,  $p = .560$ ). Significance was determined with 95% confidence.

### **Discussion/Conclusions**

The correlation that was conducted between competitive balance and attendance per game in international soccer showed that there was a weak significant relationship between these two variables. According to Foroughi et. al (2014) high fan satisfaction is a key component of attendance in international soccer. Also, high involvement in the team was more likely to occur when BIRGing, or CORFing after a loss/win regardless of gender (Ware and Kowalski, 2012). Parry, Jones, and Wann (2014) showed that English Premier League fans were more attached to their favorite team that led to them attending games in which their team was playing. These key

takeaways correspond with the results from the study because it showed that competitive balance is not the only contributing factor in attendance.

According to Pawlowski and Budzinski (2013) more than 50% of the respondents in their study were willing to pay to either improve or maintain the current degree of perceived competitive balance in the corresponding national league. This piece of information helped contradict the study and show that competitive balance can be related to attendance of international soccer games. Attendees at events in their study were primarily home team fans therefore if teams were out of competition fans would be less inclined to go (Hogan et al., 2013). Hogan et al. (2013) study contradicted this study because it showed that the fluctuation of attendance is related to competitive balance. Previous studies done on competitive balance have showed information that both corresponds and contradicts the results from this study.

One important variable that could not be controlled for in this study was stadium size. Stadium size was hard to control for because stadiums in each league vary substantially in size. Another variable that limited the study was weather. Even though weather could have been controlled for by going back and looking at the weather for each of the games this study refrained from doing that.

One thing that was intentionally controlled for was taking the five middle teams from each league. This was done so that the data was not skewed in favor of the teams that sellout every game or the teams that struggle with attendance throughout the season.

After conducting this study some recommendations could be provided to help improve further research on this topic. One recommendation that could be used to improve further research was to conduct a study using every team in one specific league to try and get a better understand of if competitive balance within that league has an impact on attendance. An example

of another league that could use this study and benefit from it would be the Italian League. The information that this study provides helps deepen knowledge on this topic. Furthermore, by looking at every home game instead of ten home games could help to provide further information that could strengthen the research. Another recommendation that could be used in order to further research would be to compare two different leagues such as the MLS and the Barclays Premier League and see if competitive balance has more of an impact on attendance in a smaller scale league instead of larger scale league. Overall, these are some of the recommendations that could be used in order to further research on this topic.

### **Summary**

The main point of this study was to see if there was a relationship between competitive balance and the fluctuation of attendance in international soccer. One of the key takeaways from the study was that there was a weak significant relationship in regards to competitive balance and the attendance per game. Also, this study showed that there are many factors other than competitive balance that contributed to the attendance of these games. Overall, after conducting this study there is definitely more information out there on the topic of competitive balance and attendance.

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