Determinants of football TV audience : the straight and ancillary effects of the presence of the local team on the FIFA world cup

DETERMINANTS OF FOOTBALL TV AUDIENCE: THE STRAIGHT AND ANCILLARY EFFECTS OF THE PRESENCE OF THE LOCAL TEAM ON THE FIFA WORLD CUP

Rodrigo Uribe*

ruribe@fen.uchile.cl

Business School, Universidad de Chile

Diagonal Paraguay 257, Floor 12, Santiago, Chile

Cristian Buzeta

cristian.buzeta@uantwerpen.be

Department of Marketing, Faculty of Economics and Business, University of Antwerp

Stadscampus, Prinsstraat 13, S.B.237, 2000 Antwerp, Belgium

Enrique Manzur

emanzur@fen.uchile.cl

Business School, Universidad de Chile

Diagonal Paraguay 257, Floor 12, Santiago, Chile

Isabel Alvarez

malvarezh@fen.uchile.cl

Business School, Universidad de Chile

Diagonal Paraguay 257, Floor 12, Santiago, Chile

*Corresponding author

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Abstract

In the setting of four FIFA World Cups, this article examines the significant effect of the national team participation and other variables as predictors of football matches audience size. It compares not only the audience of those matches with/without the presence of the national team during the same tournament (as prior research), but also the audience of matches from tournaments with/without the participation of the national team. Results show that when the national team qualifies and participate in the tournament, the home team effect represents the most relevant predictor of audience size, followed by match quality and scheduling variables. When the national team fails to qualify to the tournament, different predictors of audience behavior are detected. Moreover, the comparison between these scenarios reveals an *ancillary* home team effect for the whole tournament in which the local team is taking part and a *straight* effect when it is present on the screen.

Keywords: Football soccer, World cup, Television audiences, Ratings, Sports marketing

Antecedents

Although the traditional form of television, including subscription-based (paid) and free-to-air broadcasts, has decreased its audience levels in the last decade, it has remained as an essential medium for audiences to connect with sports live content (Lewis & Weaver, 2015). According to Nielsen, the American broadcasting market has about 130,000 hours of sports programming available on free and paid television, and more than 30 billion

hours spent by consumers when viewing sports. These figures represent an increase in both the supply and demand for televised sports of 160% and 41%, respectively compared to 2005. Moreover, sports-related content accounted for 86 of the top 100 telecasts viewed in 2017 in the USA (Nielsen, 2016, 2018).

In this context, the study of consumer behavior in media sports has attracted significant attention from the field of economics, marketing, and broadcasting management (e.g., Baimbridge, Cameron, & Dawson, 1996; Scelles, 2017; Schreyer, Schmidt, & Torgler, 2018; Smith, 2008). The vast majority of the studies have focused on examining what factors ensure the success of televised sports, either local contests or games, like leagues of soccer, baseball, football or basketball (e.g., Brown & Salaga, 2018; Caruso, Addesa, & Di Domizio, 2019; Forrest, Simmons, & Buraimo, 2005; García & Rodríguez, 2002; Pérez, Puente, & Rodríguez, 2017; Rodríguez-Gutiérrez & Fernández-Blanco, 2017; Ryu, Kim, Paik, & Cheong, 2019; Schreyer et al., 2018; Welki & Zlatoper, 1999), or the matches of national teams (e.g., Artero & Bandrés, 2018; Feddersen & Rott, 2011). Nevertheless, there is an increasing group of recent studies examining the case of international competitions such as the Olympic Games (Billings, Brown, & Brown, 2013) as well as international cycling (Van Reeth, 2013, 2019), baseball (Chiang & Jane, 2013) or soccer competitions (Devlin & Billings, 2016; Kim, Cheong, & Kim, 2016; Kim & Kim, 2012). This growing interest is related to the enormous impact of these events in terms of both reaching large audiences, and attracting media outlets and advertisers interested in paying in advance vast sums of financial resources to get the rights to broadcast or to sponsor these tournaments (Haynes & Boyle, 2017; Horne & Manzenreiter, 2006)[1].

[1] For instance, the 2014 FIFA World Cup reached a total audience of 3.2 billions of viewers (an average of 186.7 millions people watching each match) and generated an total revenue of US$338 millions mainly

In their analysis, those studies have expressly incorporated the effect of the presence of national representatives (i.e., teams, athletes) on sports audience, in the context of these international competitions (analogously to the home team effect in local leagues). They have examined not only the traditional explanatory variables (e.g., outcome uncertainty, match quality) but also the differences in the audience size between those matches with and without the presence of the national team or athlete. These studies have used either one competition (e.g., Kim & Kim, 2012; Tang & Cooper, 2017; Van Reeth, 2019) or several tournaments (e.g., Nüesch & Franck, 2009), observing that the presence of the national team or athlete acts as a strong predictor of the audience consumption behavior, which has been explained as an outcome of consumers' patriotic sentiments, which would represent a primary motive to watch these matches (Angelini, MacArthur, Smith, & Billings, 2017; Bale, 1986, 2007; Feddersen & Rott, 2011; Nüesch & Franck, 2009; Rodríguez, Pérez, Puente, & Rodríguez, 2015).

Despite the substantial evidence provided by prior pieces of research, they have only compared the television audiences among those tournaments in which the national team is participating, given its previous qualification. In other words, these studies have evaluated the straight effect of the presence/absence of the national team "in the field" during the championship. Nevertheless, it is essential to bear in mind that international sports mega-events are usually selective tournaments, in which only a few countries, teams, or athletes qualify and take place in the competition[2]. For that reason, a comprehensive examination of the actual effect of the presence of the national team on audience behavior must also include those tournaments in which the national team has

from the sale of rights, particularly in the area of marketing and television (FIFA, 2014, 2015; Haynes & Boyle, 2017; Horne & Manzenreiter, 2006).

[2] Among the 80 countries that had participated in any of the twenty FIFA World Cups (1930-2014), there is an average of about five appearances approximately per national team (Stokkermans, 2018).

failed to qualify. In terms of audience success, a televised match between two foreign national teams does not represent the same broadcasting scenario if the case the local team (i.e., the national representative) is or is not taking part in that tournament, suggesting the existence of an *ancillary effect* occurring when the national team have qualified to the tournament (Scott, Hill, & Zakus, 2012).

Thus, this study seeks to provide a new understanding of the television audience size determinants of an international soccer competition (FIFA World Cup), considering two tournaments settings: with and without the presence of the national team. Taking the case of Chile, a nation where soccer represents the most popular sport (Alarcón et al., 2017; Ferreira & Bravo, 2007), this paper presents an examination of television consumption of the soccer matches during FIFA World Cups of 2002, 2006, 2010, and 2014 competitions. Therefore, the primary objective of this research is to examine the determinants of TV sports audiences, and the potential changes in them across different scenarios: a) while the national team is participating and playing a game in the tournament, b) in the case the national team is not playing that game (but qualified for the tournament), or c) when the national team did not qualify for the competition (it is not playing in the tournament). To the best of our knowledge, this study is the first that distinguish two different ways the home team effect influences audience size: a primary or "straight" effect for those matches having the participation of the national team, and a secondary or "ancillary" effect for the remaining matches across that tournament.

Literature review

A relevant number of studies have previously reported several determinants of the sports audience attendance and TV consumption at local level, for baseball leagues (Chung, Lee,

& Kang, 2016), basketball (Hausman & Leonard, 1997), American football (Paul & Weinbach, 2007; Tainsky, 2010; Tainsky & Jasielec, 2014; Tainsky & McEvoy, 2012), and soccer (Alavy, Gaskell, Leach, & Szymanski, 2010; Buraimo & Simmons, 2009; Forrest et al., 2005; García & Rodríguez, 2006; Pawlowski, 2013). These studies have concluded the main determinants of sports TV audience are elements associated with *the attractiveness of the match: outcome uncertainty, match quality, team familiarity,* and *audience identification with a team* (also known as *home team effect*), which is the focus of this study. Besides, it has been proposed that the audience of sports is also explained by other variables, mainly related to *scheduling factors.* In the case of the studies about international competitions, the *home team effect* has been recurrently highlighted as the critical element to predict and explain TV audience behavior (Van Reeth, 2019).

a) Variables related to the attractiveness of the match

i. Audience identification with a team (Home Team Effect)

The extent of identification (positive attitude) with at least one team or player involved in the competition has been demonstrated as a significant determinant for the consumption of sports on TV. In this respect, several studies examining local leagues have reported that being a fan of a particular player or more commonly a team is one of the significant predictors of viewership of a match, because of the emotional attachment associated with team identification (Borland & Macdonald, 2003; García & Rodríguez, 2009; Solberg & Hammervold, 2008; Tainsky & Jasielec, 2014; Tainsky & McEvoy, 2012).

Nevertheless, it has been posited that there are some differences when comparing the identification produced due to the presence of a local team (or athlete) in international

competitions -which is linked with the national identity- and the mere connection with a particular team of a local league (Tomlinson & Young, 2006). Consequently, the presence in the field of the national team has been frequently reported as the strongest (or at least one of the strongest) predictors of audience size (Kim & Kim, 2012). For instance, Nüesch and Franck (2009) reported a study investigating, among other variables, the role of the presence of the national team at four international soccer competitions using the number of residents coming from a given country living in Switzerland as a predictor of TV ratings for the corresponding national team game. They observed that the demand for televised national team games in international contests was driven mainly by both the expected game quality (strength of the opponents) and the nationality of the audience. These authors related these results to the cross-cutting support of the team within a country, which is based in "patriotic" sentiments associated with the country (García & Rodríguez, 2002; Kuypers, 1996; Nüesch & Franck, 2009; Rodríguez et al., 2015; Tainsky & Jasielec, 2014). This idea is based on that soccer and sports, in general, are catalysts for patriotic feeling. In fact, good TV ratings obtained by national sports teams and athletes at international competitions show the role of sports as a source of national pride, which intensify the attachment and interest of audiences (Borusiak, 2009).

Thus, based on prior evidence, it is posited the first hypothesis of this study:

H1: The presence of the local national team in a FIFA World Cup match (H1a) significantly increases the audience size; and, (H1b) is the most influential variable associated with audience size of FIFA World Cup matches.

ii. Outcome uncertainty

Since sports is about competition, studies have recurrently mentioned the *outcome uncertainty* as a significant variable to explain audience size (Nalbantis & Pawlowski, 2016). In general terms, the uncertainty of outcome hypothesis can be defined as the relationship between competitive balance or symmetry among teams and fans' interest, which is exhibited by their demand for league products. It is proposed that higher levels of competitive balance lead to an increasing interest in attending or watching on TV a game (Manasis, Avgerinou, Ntzoufras, & Reade, 2012). Literature regarding competitive balance has stressed the multilevel character of it, distinguishing between match level, seasonal dimension, and long-run (Buraimo & Simmons, 2015). In the case of this paper, the focus is on the match level because the context of the study (FIFA World Cup) are brief tournaments.

Although some studies have failed to find a significant effect of outcome uncertainty (Artero & Bandrés, 2018; Paul & Weinbach, 2015), there is a substantial body of studies reporting a statistically significant impact of this variable on audience size (Alavy et al., 2010; Forrest et al., 2005). This effect has been explained regarding the high expectation generated by uncertainty derived from the competitive balance between the teams in the field (Buraimo & Simmons, 2008). There are several pieces of research devoted to measuring the relationship between demand and outcome uncertainty, which have focused on a variety of different measures for uncertainty. These pieces of research have tended to use recent performance of the teams, which could be expressed in several rankings of national football teams (Buraimo & Simmons, 2009; Paul & Weinbach, 2007). Thus, matches between teams with similar performances should be considered – in general terms– more uncertain and then, more attractive (Baimbridge et al., 1996; García & Rodríguez, 2002). Nevertheless, other studies have observed that uncertainty may also derive from the progression of the match, which could be related to matches

ending the first half with a draw and the existence of penalty shootout definition (Alavy et al., 2010).

Based on this evidence, it is posited the second hypothesis of this study:

H2: Match result uncertainty is a significant factor predicting the audience size of FIFA World Cup matches.

iii. Match quality

The quality of the match has been another variable recurrently mentioned in the studies. It is generally suggested that viewers and spectators are, in part, drawn to sporting contests to watch the teams on the field and their players displaying their superior skills (Hausman & Leonard, 1997; Solberg & Hammervold, 2008; Tainsky, 2010). There is evidence that contests involving teams with higher international reputation, with a successful story, and/or playing more advanced stages of the tournaments should exert higher drawing power on viewers (Feddersen & Rott, 2011; Forrest et al., 2005; García & Rodríguez, 2006; Paul & Weinbach, 2007). Moreover, critics of the uncertainty hypothesis have proposed that in the current scenario dominated by increasing wage-bill spent by clubs, teams with top players and superstars should significantly motivate the audience consumption of the matches, because it is expected that the presence of these players would increase the expected quality of the match (Buraimo & Simmons, 2015; Funk, Filo, Beaton, & Pritchard, 2009).

Thus, the third hypothesis of this study is proposed:

H3: Participant teams' quality is a significant predictor of the audience size of FIFA World Cup matches.

iv. Team familiarity

Familiarity with non-local teams appears as another variable that may increase the audience size. Tainsky and McEvoy (2012) suggest that team familiarity can partially explain television ratings in those markets without local teams participating in NFL competitions. In this context, the familiarity of the team is related with both (a) the number of years that the team has been in competition and (b) the presence of a team that is geographically close (Tainsky & McEvoy, 2012), although these researchers do not suggest a formal construct definition. In a follow-up study, Tainsky and Jasielec (2014) suggest that NFL spectators could show increased familiarity levels towards the conference and divisional rivals of the local team, mainly due rival teams often compete with the local team most directly for playoff berths. Also, there may be increased familiarity with these rival teams from playing the local team twice per season (Tainsky & Jasielec, 2014).

Thus, a fourth hypothesis is proposed in this study:

H4: Spectators familiarity with participant team is a significant predictor of the audience size of FIFA World Cup matches.

b) Non-sporting related variables

Variables such as the climate conditions, the particular moment of the year, the scheduled date and time, and the broadcaster are commonly included in this group. All of these variables are related to audience availability, as part of those structural determinants of the audience level (Cooper & Tang, 2009; Webster, Phalen, & Lichty, 2005). The *broadcasting schedule* is frequently mentioned as a factor explaining the audience size of televised competitions. Match demand is expected to increase for those hours or dayparts

with higher audience availability, in particular, during prime-time hours and the weekends. Data allowed one to evaluate this factor in terms of three variables: day of the week (weekday versus weekend), programming schedule (four different dayparts) and time of day (early morning, during the morning or midday) (Feddersen & Rott, 2011; Forrest et al., 2005; García & Rodríguez, 2006).

H5: Day of the week is a significant predictor of audience size of FIFA World Cup matches.

H6: Daypart is a significant predictor of audience size of FIFA World Cup matches.

c) The presence or absence of the national team on the tournament

Since sports mega-events such as Olympic Games or FIFA World Cup have a limited number of participants, many networks holding national broadcast rights have the uncertainty of whether or not the national team will qualify for the final stage. Even though these tournaments are very attractive *per se* for their consumers (Fujak, Frawley, & Morgan, 2017), network stations know that the event "is not the same" when all the participants are foreign teams. In fact, it has been reported that media outlets develop a very different coverage of sports when the home team is not part of the competition as a means to attract larger audiences (Scott et al., 2012).

Research on national sports teams has proposed that football is a defining element of local national identity. National sports teams represent the entire nation, fostering a sense of national pride and attachment (Brochado, Dionisio, & Leal, 2018). Sports performance in the context of international tournaments increases the national pride and attachment to the contest (Abell, Condor, Lowe, Gibson, & Stevenson, 2007; Billings, Brown, & Brown-Devlin, 2015; Evans & Kelley, 2002). As a result, the presence of these sentiments

leads to massive consumption of the matches with the national team compared to the those without the presence of the local team (Billings et al., 2013; Devlin & Billings, 2016; Seate, Ma, Iles, McCloskey, & Parry-Giles, 2017). Consequently, in the context of failure of the national team in qualifying for the World Cup, the collective experience of emotional attachment and patriotic feelings adjacent to the development of the competition are diminished (Elling, Van Hilvoorde, & Van Den Dool, 2012; Mutz & Gerke, 2018). In this context characterized by lower levels of emotional attachment associated with the tournament, which directly impacts consumer behavior (Carvalho, Luna, & Goldsmith, 2019), it is predicted that:

H7: A tournament without the local team participating in the competition depicts a lower audience size level than another one with the presence of the local team.

H8: The determinants traditionally examined in the context of FIFA World Cup matches' audience size have a different explanatory power when the local team is participating in the competition.

Method

Based on the hypotheses mentioned above, this article has used audience ratings from four FIFA World Cup competitions (2002, 2006, 2010 and 2014) evaluating the determinants of their TV audience size in Chile.

[INSERT TABLE 1 ABOUT HERE]

This study uses aggregated rating data from the television audience measurement of Kantar IBOPE Media using people meters. This system is based on a panel sample of above 2100 people over four years old, whose TV consumption behavior is recorded by an electronic device installed in all the TV sets of the 600 households participating in the

study to record the level of viewership and the selected TV stations on a minute-to-minute basis. The sample of this panel covered almost 6.6 million urban residents of Chile's major cities (Kantar IBOPE Media, 2014).

Three scenarios were examined, considering the participation (2010 and 2014) -identified as Scenarios 1a and 1b-, or not (2002 and 2006) -namely Scenario 2- of the Chilean national team in FIFA World Cup competitions. The unit of analysis in both scenarios was the match because the output of the audience measure does not allow one to examine individual information (but only aggregate data). It was used the average audience of the matches broadcasted on free-to-air TV during the whole period the World Cup took place. The rating measure was used to represent the average audience. The number of matches included in each case corresponded to the full number of matches broadcasted live on free-to-air TV in Chile. Consequently, the data were extracted at the "all Individuals" level and segmented in a socio-demographic approach using Kantar IBOPE Media TV Data software. Rating data have been mainly used as the classic method to express any specific audience size, representing the number of viewers from a given target group attending a TV event at a particular time on a percent basis (Schrøder, Drotner, Kline, & Murray, 2003; Webster et al., 2005).

Finally, it is important to notice that only the consumption of households (free-to-air and paid TV) is reported in the Kantar IBOPE Media audience panel measurement. All the incidental consumption made at out-of-home (OOH) is not incorporated. This particularity represents a relevant characteristic of the study and must be considered when analyzing and interpreting the results. In other words, the available data do not consider online streaming consumption, as it was scarce then; nor those individuals watching the matches on entertainment establishments that televise them.

Through multiple regression analyses, this study tested the performance of independent variables to predict and correctly represent the match audience size. This method represents a conventional approach in audience research (e.g., Paul & Weinbach, 2007; Webster, 2006; Yuan & Webster, 2006). According to previous literature, the independent variables incorporated were:

- *Home team effect (Presence of the national team)*: What the vast majority of the members of the audience have in common in a particular country is their support for the national soccer team. This way, assuming the occurrence of the mentioned home team effect associated with patriotism, the operationalization of this variable was using a dichotomous variable representing the presence/absence of the national team in the match (Bale, 1986; Nüesch & Franck, 2009; Rodríguez et al., 2015; Tainsky & Jasielec, 2014; Tainsky & McEvoy, 2012). Also, it was measured whether the presence of matches of the rivals of the national team (i.e., in the same group of the tournament) could represent a halo effect on the audience size (Mahony & Moorman, 1999).
- *Outcome uncertainty*: Prior studies have employed different measures of outcome uncertainty, by using either betting odds to extract probabilities of match outcomes or the differences in the performance of the teams including current and aggregate home and away performance (e.g., Buraimo & Simmons, 2008). As there is only a marginal presence of home, and away teams in the World Cup and betting odds (from European or North American countries) have a significant bias in the prediction of other markets, we adapted the traditional definitions of Hart, Hutton, and Sharot (1975) and Artero and Bandrés (2018) in terms of quotient of points in teams' FIFA ranking points. That is to say, matches between teams with similar performances should be considered more uncertain and, supposedly, more attractive (Baimbridge et al., 1996).

Also, this factor was also measured using some match information, like the result of a *tie at the end of the first half* and the *definition of the match via penalty kicks* (Alavy et al., 2010). Both variables were measured using a dichotomous variable.

- *Match quality*: Within the context of a World Cup, it may be expected that matches involving teams with a higher international reputation should exert greater drawing power on viewers. For that reason, two indicators were used to explore the relevance of this variable. In this vein, the better FIFA ranking the teams of the match have (representing historical quality) and the more advanced the match in the tournament (stage), the more attractive the match should be for the audience. This measure is analog to that used by previous studies regarding the historical and recent performance in the league (Artero & Bandrés, 2018; Paul & Weinbach, 2007). Deeping in the sources of match quality, it was incorporated a measure of the quality of players on the field, using the points achieved for a player in the "Ballon d'Or" poll, in order to evaluate the presence of "superstars" (Feddersen & Rott, 2011; Hausman & Leonard, 1997). Finally, a final variable representing the presence of any past champion team on the field was included, in order to address the historical performance of a specific team in previous competitions (Artero & Bandrés, 2018).
- *Team familiarity*: Previous research has proposed familiarity with non-local or rival teams as a relevant factor affecting the audience size (Tainsky & Jasielec, 2014; Tainsky & McEvoy, 2012). For this study, this factor was analyzed into both scenarios, with and without the presence of the Chile national team. In order to measure team familiarity, it was used (1) the geographic distance between the capital city of Chile and the capital city of the teams playing the match was employed, and (2) the number of previous World Cups played by the teams was used to represent

their "time 'in the market'", particularly into this kind of competitions (Tainsky & McEvoy, 2012).

- *Scheduling*: Previous research supports the idea that daypart and scheduling of a match could affect the audience size (Feddersen & Rott, 2011; Forrest et al., 2005; García & Rodríguez, 2006). This notion allowed this factor assessment employing two main variables: day of the week (weekday versus weekend), and schedule, fractioned in four dayparts (early morning, during the morning, evening or night) (Artero & Bandrés, 2018).

[INSERT TABLE 2 ABOUT HERE]

A multiple regression model was tested, using *TV audience rating* as the dependent variable. The five factors were expressed using 13 independent variables.

TV audience rating = presence of national team (home team effect) + outcome uncertainty + match quality + team familiarity + scheduling

Results

Findings are presented in two main scenarios, regarding competitions with (2010 and 2014) and without the participation of Chile national team (2002 and 2006). The objective is to assess the differences and coincidences produced at each context, related to the audience behavior and its incidence in the variables under study.

a) Scenario 1: 2010 and 2014 World Cups (with local team participation)

This scenario was evaluated by developing two separated analyses, presented in Tables 3 and 4. First, in Scenario 1a all the 76 broadcasted matches of the 2010 and 2014 World Cups were included. Second, Scenario 1b was comprised of 68 matches without the presence of the Chilean national team (eight matches with the participation of the national

team -four in each tournament- were excluded). This approach allows us to grasp the specificity of the changes when the national team is not playing that particular match, but it is a participating team in the tournament (as traditional studies have examined).

In this regard, the first important result is that both models (scenarios) were significant ($p < 0.001$). Nevertheless, it is noteworthy that in Scenario 1a (with the inclusion of the national team matches), the explained variance is increased compared with the analysis of the foreign teams matches included in the Scenario 1b ($R^2 = .846$; Corrected $R^2 = .816$ versus $R^2 = .669$; Corrected $R^2 = .597$ respectively).

i. Scenario 1a: Including the matches of the national team.

When the national team participated in the competition, it is observed an increase of 45 percent in the audience size. In this case, the presence of the national team, was, by far, the more significant and relevant variable increasing the match audience size (Table 3). In other words, when the national team was participating in the tournament, the audience size significantly increased (H1a), and also it explained the most prominent part of the audience size (H1b).

For the remaining hypotheses, it is observed that for H2 none of the operational definitions of outcome uncertainty performed as an explanatory variable of the audience size. Examining H3, the match quality has partial support as an explanatory variable as the stage of the competition (e.g., round, phase) becomes the only significant variable. Therefore, the more advanced the competition stage, the higher will be the match audience size. Other operational definitions of match quality did not have a significant effect. Detailing on H4, there is no evidence that any operational definition of team familiarity was significantly associated with an increase in audience size, rejecting it. Finally, for H5 and H6 the match scheduling was a significant factor, represented in the

values associated with day of the week (H5) and daypart (H6) in which a match is broadcasted, providing support to those two hypotheses.

These results are reinforced by the analysis of the explaining power of the factors incorporated in this study. There is a strong effect of the presence of the national team, which is followed by a more modest (but significant) effect of the quality of the match, uncertainty, and scheduling factors.

[INSERT TABLE 3 ABOUT HERE]

ii. Scenario 1b: Excluding the matches of Chile national team

In Table 4, a supplementary analysis is presented which intends to examine the peculiarities of the World Cup audience size in a tournament where the national team qualified, but now focusing only on the matches where the national team is not present in the field. In this case, H1a (national team effect) was examined by using the direct rivals of the local team (countries participating in the same group). Results showed a significant effect of this variable. In other words, there was detected a sort of ancillary home team effect on audience size determined by the presence of the direct rival teams of the national team.

In general terms, and for the rest of factors, the audience behavior in the Scenario 1b was similar to what it was already reported for the Scenario 1a. In the case of H2 (outcome uncertainty) and H4 (team familiarity), none of their measures were found significant. In the case of H3 (match quality), the phase of the competition was again the only significant match variable. Moreover, both operational definitions of structural variables (day of the week and daypart) were also significant (H5 and H6). Thus, the removal from the dataset of those matches in which the national team was playing, did not configure a different scenario in terms of the significant variables. Nevertheless, there are differences in terms

of a decrease in the explaining power of the model (R^2) and an increase in the coefficient values of two particular variables, namely, match quality and scheduling factors (Table 7).

[INSERT TABLE 4 ABOUT HERE]

b) Scenario 2: 2002 and 2006 World Cups (without local team participation)

In terms of audience, the average rating of the World Cups matches with the presence of the national team is higher (M = 9.82, SD = 6.02) compared to the average rating in those World Cups without the participation of the national team (M = 6.78, SD = 2.90). In other words, there is a significant decrease in the audience size when comparing Scenario 1a with Scenario 2 [t(163) = -4.227, p = .000], due to the presence of the national team in the competition. In addition, the comparison between the average rating for matches without the presence of the national team on the screen (but participating in the tournament) in the Scenario 1b (M = 8.20, SD = 3.79) compared to the matches in the Scenario 2 also depicted significant differences [t(155) = -2.646, p = .009]. Thus, these results support the H7 of this study (Table 5).

[INSERT TABLE 5 ABOUT HERE]

Table 6 depicts the results of those World Cups (2002 and 2006) without the participation of the Chilean national team. The model remains significant ($p < 0.001$), explaining more than fifty percent of the variance (R^2 = .582; Corrected R^2 = .522). In this regard, it is observed a decrease in the explained variance of the models from 82% (Scenario 1a) to 52% (Scenario 2), which again it shows the important presence of the national team on the screen as H1a predicted.

Regarding the coefficients of the variables examined in this study, outcome uncertainty (H2) showed a non-significant effect on audience rating. Only in the particular case of the 2006 FIFA World Cup, a significant effect was observed when associated with a match defined by penalty shootouts. Examining H3 on match quality, the competition phase indicator was significantly associated with an increase in the audience size, the same as the presence of a past World Cup champion team in the field. In the case of the other variables measured in this study (e.g., players quality, FIFA ranking), they were not significant as predictors of audience size. Detailing on H4, there is evidence that the familiarity with the national teams playing in the match did not affect the audience size of that match. Indeed, it was detected that neither previous appearance on FIFA World Cups nor geographic distance tended to produce an effect on the audience level. Finally, results showed that broadcast schedule was a significant factor, mainly because the weekday (H5) and daypart (H6) in which a match is programmed could increase audience size.

[INSERT TABLE 6 ABOUT HERE]

Regarding the explaining power of the factors of this scenario, match quality was by far most important element (ΔR^2 =0.287), followed by the combined action of scheduling factors (ΔR^2 =0.155) and outcome uncertainty (ΔR^2 =0.124) as presented in Table 7. In this vein, a World Cup without the presence of the national team configures a relatively different scenario in terms of audience behavior, in which match quality become the critical element in predicting audience, which supports H8.

[INSERT TABLE 7 ABOUT HERE]

Conclusions

This piece of research sought to examine the relevance of the presence of the national team as a predictor of audience size of international tournaments in a novel way. This analysis examined four editions of the FIFA World Cup depicting two different scenarios: absence (2002 and 2006) and presence (2010 and 2014) of the national team in the tournament. In the latter case, it was evaluated the differences between those matches with and without the presence of the national team on the screen.

Differently to what prior research has postulated, our analyses allow one to detect the existence of an effect of the national team even if the local squad is not playing but it is part of that tournament. In this regard, our approach has distinguished two kinds of home team effect, including a *straight* impact on the audience rating due to the presence of the national team on the field (and on the screen), and also an *ancillary* impact, derived from the qualification and participation of the national team in the World Cup. The existence of these effects not only affects the audience size but also configured different scenarios regarding the significance of the variables that influence the audience size. In other words, the amount and nature of local TV audience demand for a particular FIFA World Cup are firstly related to whether or not the national team qualifies for that tournament. This scenario makes the championship more/less attractive as a whole and modifies what operational variables predicted the preference of the audience.

The attendance of the national team at a FIFA World Cup increases the attractiveness of this particular tournament as a whole, no matter if the national team is actually playing or even if it is later eliminated of the championship. In other words, when the national team qualifies for the FIFA World Cup, the tournament itself becomes very appealing. Thus, the absence of the national team in a World Cup in which it has or has not been part is not analog to the absence of it in a particular match or phase of the tournament. That is why we proposed that we are in the presence of an *ancillary* effect generated by the mere

presence of the national team in the tournament. Secondly, the presence of the national team on the screen is –by far– the most critical variable able to explain audience size, which has been proposed as *straight* effect. When comparing the size of the effect in the regression models, it could be detected that the values of them are very different as the rest of the variables. Thus, although it would seem obvious to assert the relevance of the national team in an international competition, this model can help to quantify the size of the expected effect of this variable on audience rating.

As a descriptive explanation for this effect it can be argued that fans of the local national team are also interested in watching other foreign teams' matches and knowing how these teams in their group perform, as they have the most direct impact on the local team's probability of qualifying for the playoff (Tainsky & Jasielec, 2014). Nevertheless, a more theoretical perspective helps us to propose a significant role of patriotism in these effects (García & Rodríguez, 2006; Nüesch & Franck, 2009; Rodríguez et al., 2015). In the case of the ancillary effect, it could be motivated by the patriotic sentiment of being part of a selected group of teams/countries participating in the most important soccer tournament of the world (Elling et al., 2012; Goig, 2008). This feeling is exacerbated by the presence of the national team in the pitch, which both significantly increases the engagement with the match and leads to the consumption of that content (Billings et al., 2013). Thus, since major sporting events provide a site for national identities to be expressed (for example in terms of TV audience), it is manifested in the World Cup as a whole (being part of the selected group of nations), and in a stronger way when the national team is playing. Consequently, a world cup in which the national team is not participating inhibits the development of patriotism, which is a crucial driver to sports media consumption (Abell et al., 2007).

Also, it is interesting to notice that the scheduling factors (day of the week and daypart) of the matches are relevant variables regardless of the presence of the national team in the tournament. These factors were highly relevant predicting audience size: the matches played on the weekend have more share of the audience compared with the ones played and broadcasted along with the workweek. In this vein, these results provide support to what several authors have labeled as structural factors (S. J. Kim & Viswanathan, 2015; Webster & Newton, 1988; Webster et al., 2005). These factors refer to various contextual and programming-related factors that influence television viewing (Wonneberger, Schoenbach, & van Meurs, 2009), and particularly televised sports consumption (Fujak et al., 2017).

Regarding other variables, it is noteworthy that the uncertainty of the result was not a significant variable (with the only exception of the penalty shootout in the case of the 2006 FIFA World Cup). In this vein, these results in Scenarios 1a and 1b contradicted the results of prior research supporting the existence of this effect (Baimbridge et al., 1996; García & Rodríguez, 2002) and provided evidence in favor of those that expressed criticism of this notion (Buraimo & Simmons, 2015). This result could be explained by the strong effect of the presence of the national team on audience size, which made almost invisible the influence of any other variable (Nüesch & Franck, 2009). Besides, this result can also be interpreted as a situational effect of outcome uncertainty as it has been proposed by recent research (Pérez et al., 2017). On the other hand, match quality was significant in both scenarios supported by the same operational definitions of this element: competition phase. Besides, the presence of past champions in the field was also a significant variable when the national team is not participating in the tournament. In this vein, it is supported the idea of the relevance of the match quality associated with late

stages of the tournament regardless the presence of the national team in the World Cup (Scott et al., 2012; Yang & Kumareswaran, 2009).

Overall, these results tend to corroborate in this region (and particularly in Chile), and for the case of a World Cup (rather than a local league), several elements described by previous literature play a significant role in predicting audience size. In particular, these results show the significance of a strong home team effect in the context of international tournaments, which cannot be adequately examined in the case of local leagues (Nüesch & Franck, 2009).

In terms of relevance, and to the best of our knowledge, these findings are the first to report both a straight and an ancillary home team effect. Thus, these results can be used as an essential input for advertiser and programmers at different moments of the decision-making process about the soccer World Cup. Firstly, since the host country of the FIFA World Cup is known when the broadcasting rights are commercialized, the significant role reported for structural factors (and notably scheduling variables) in audience size provides a first insight into the attractive of that particular tournament. In practice, it means that a World Cup hosted by a country with the same (or at least similar) time zone is more attractive than a tournament played in a country with 4, 6 or 8 hours ahead or behind (Fujak et al., 2017). Secondly, as a result of the qualifying phase of the World Cup (at that moment the broadcasting rights were paid, but several local advertisers are still in the process of decision making, and local broadcasters are evaluating programming options), it is known whether or not the country will be part of the FIFA World Cup. Results of this study show that to qualify or not to qualify is a breakpoint that defines the general attractiveness of this version of the tournament for a particular market. Moreover, at that point in time it is known the quality of all the teams taking part of the FIFA World Cup, which allows one to evaluate the quality of the teams participating in the event (in

particular, the number of former champions), which was significant variable when the local teal did not qualify for the tournament.

Limitations and Future work

Finally, it is also important to note some limitations of the study. Despite being a census of the FIFA World Cups freely live-broadcasted matches, the number of observations (165 matches) is limited. This constraint is due to a structural problem of the case study, with the sporadic occurrence of this kind of events happening every four years. A related limitation is related to the incorporation of a single country (Chile). Although these elements provide comparability to the data, it is vital to note that it restricts the number of observations, and limits further and more sophisticated examinations such as multigroup analyses or evaluation of particular segments.

As mentioned previously, this study measured only traditional households' TV consumption, leaving out the potential consumption that occurs in public places such as bars or restaurants, or if people organize a social gathering to watch a game. Similarly, the results of this study could also be biased by other new factors such as cross-media consumption, which should be included in news studies in this field (Schrøder, 2011).

Further research should also examine the same determinants of audience size but in continental cups as the Euro Cup or Copa America. In this kind of tournaments, there is massive participation of countries from a particular continent, and then local rivalry may emerge.

Finally, it is essential to consider the context in which the study was developed. Since countries like Chile, and Korea in the study of Kim and Kim (2012), are nations with intermittent and often irregular participation in soccer World Cups (nine and ten appearances respectively), the audience size may also be distorted by fans expectations.

Indeed, either positive expectations after a long time without participating in the FIFA World Cup, or negative expectations (meaning deception) after being eliminated in the qualifying phase of the audience could significantly affect TV audience size. It could be expected that audiences from countries like Brazil, Germany Italy or Argentina (which have been part of almost all the FIFA World Cups) versus others like Jamaica, Panama or Iceland (with just one appearance in that tournament) could depict some changes in their behavior. These differences may be related not only to expectations of the results of the novelty of being part of a World Cup, but also with cultural values such as the meanings associated with soccer matches, the relative importance of soccer in that society or the prominence of values like rivalry or competitiveness (Bandyopadhyay, 2018, Vaczi, 2015; Benkwitz & Molnar, 2012). Nevertheless, in the context of this research piece, this potential effect is negligible, given the fact we considered not one, but two World Cups competitions for each one of the studied scenarios.

Moreover, it is interesting to continue the examination on the determinants of the soccer demand in Latin America, in which this study along with another one published by Buraimo, Tena, and de la Piedra (2018) -examining the soccer league attendance determinants in Peru- are the only pieces of research published in the literature. Studies coming from this area of the world in which soccer has played a vital role in defining its culture (Nadel, 2014), can provide a broader perspective on how determinants affect the demand for sports content.

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TABLE 1: Summary of live matches under analysis

Tournament	Number of live matches under analysis	Presence of local team in the competition (Chile)
Korea – Japan 2002	36	No
Germany 2006	53	No
South Africa 2010	33	Yes
Brazil 2014	43	Yes

TABLE 2: Independent variables and their measurement

Factor	Independent Variables	Measurement
Home team effect	Presence of the local team (Chile)	*Absence / Presence*
	Presence of a team of the same group	*Yes / No*
Outcome uncertainty	Difference in teams' performance	*FIFA Ranking points quotient*
	Matches ending first half with a draw	*Yes / No*
	Penalty shootout definition	*Penalty shootout ending / No Penalty shootout ending*
Match quality	Competition phase	*Competition phase number*
	Past Champions on field	*Sum of former champions teams*
	Players quality	*"FIFA Ballon d'Or." ranking points*
	Ranking	*Sum of FIFA Ranking*
Team Familiarity	Geographic distance	*Distance to team's capital city*
	Time 'in the market'	*Number of previous tournaments played*
Programming (Scheduling)	Broadcast day of the week	*Workweek / weekend*
	Broadcast daypart	*Early Morning / Morning / Afternoon / Evening*

TABLE 3: Scenario 1a (Including Chile matches)

		2010 WC	2014 WC	2010-2014 WCs
Factor	**Variables**	**β**	**β**	**β**
	(Constant)	-2.044	-.795	-1.028
Home team effect	Presence of the local team (Chile)	16.974***	15.573***	16.641***
	Presence of team of the same group	--		--
Outcome uncertainty	Difference in teams' performance	-.037	.444	.135
	Matches ending first half with a draw	.130	.395	.326
	Penalty shootout definition	--[3]	1.250	.158
Match quality	Competition phase	1.479**	.821	1.166***
	Past Champions on field	-.272	.060	.035
	Players quality	.290	.625	.529
	Ranking	.484	.274	.320
Team familiarity	Geographic distance	-.812	-.540	-.559
	Time 'in the market'	.303	.873	.543
Programming (Scheduling)	Broadcast day of the week	4.222***	2.022*	2.903***
	Broadcast daypart	2.493**	2.472*	2.286***
	R^2	.908	.813	.846
	Corrected R^2	.859	.738	.816
	F	18.756***	10.859***	28.747***
	Cases (broadcast emissions)	33	43	76

** p < .05; ** p < .01; *** p < .001*

[3] *There was no Penalty defined broadcasted matches*

TABLE 4 – Scenario 1b (Not Including Chile matches)

		2010 WC	2014 WC	2010-2014 WCs
Factor	**Variables**	**β**	**β**	**β**
	(Constant)	-5.449	-1.606	-2.461
Home team effect	Presence of the local team (Chile)	--	--	--
	Presence of team of the same group	3.916**	7.978***	4.792***
Outcome uncertainty	Difference in teams' performance	-.528	.551	.076
	Matches ending first half with a draw	.015	-.108	.196
	Penalty shootout definition	--[4]	1.497	.231
Match quality	Competition phase	1.469**	.801	1.236***
	Past Champions on field	.344	.038	.485
	Players quality	.303	.872	.483
	Ranking	.995	-.071	.271
Team familiarity	Geographic distance	-.372	-.948*	-.587
	Time 'in the market'	.780	.832	.456
Programming (Scheduling)	Broadcast day of the week	4.788***	2.336*	3.253***
	Broadcast daypart	3.429**	2.695**	2.515***
	R^2	.800	.704	.669
	Corrected R^2	.670	.567	.597
	F	6.172***	5.143***	9.272***
	Cases (broadcast emissions)	29	39	68

** p < .05; ** p < .01; *** p < .001*

[4] *There was no Penalty defined broadcasted matches*

TABLE 5 – Average audience size for each scenario

Scenario	N	Mean	St. Deviation	95% Confidence Interval	
				Lower Bound	Upper Bound
Scenario 1a	76	9.82	6.02	8.44	11.20
Scenario 1b	68	8.20	3.79	7.28	9.11
Scenario 2	89	6.78	2.90	6.12	7.39

TABLE 6 – Scenario 2

		2002 WC	2006 WC	2002-2006 WCs
Factor	**Variables**	**β**	**β**	**β**
(Constant)		-1.979	-3.536	-.433
Home team effect	Presence of the local team (Chile)	--	--	--
	Presence of a team of the same group	--	--	--
Outcome uncertainty	Difference in teams' performance	.158	.481*	.348
	Matches ending first half with a draw	1.504	-.402	.516
	Penalty shootout definition	1.808	2.311*	.597
Match quality	Competition phase	.524	.437	.712**
	Past Champions on field	2.597**	1.199	2.353***
	Players quality	-.521	-.219	-.497
	Ranking	.460	-.257	-.337
Team familiarity	Geographic distance	-.798	-.533*	-.457
	Time 'in the market'	-.174	-.153	-.532
Programming (Scheduling)	Broadcast day of the week	.277	2.333***	1.259**
	Broadcast daypart	3.152***	3.171***	1.672***
	R^2	.710	.774	.582
	Corrected R^2	.577	.713	.522
	F	5.348***	12.771***	9.728***
	Cases (broadcast emissions)	36	53	89

** p < .05; ** p < .01; *** p < .001*

TABLE 7 – R2 and ΔR2 for each studied scenario

Step	Factor	Scenario 1a		Scenario 1b		Scenario 2	
		2010-2014 WCs With Chile		2010-2014 WCs Without Chile		2002-2006 WCs	
		R^2	ΔR^2	R^2	ΔR^2	R^2	ΔR^2
1	*Home team effect*	.631	.631	.011	.011	--	--
2	*Outcome uncertainty*	.641	.010	.029	.017	.124	.124
3	*Match quality*	.755	.114	.372	.344	.411	.287
4	*Team familiarity*	.765	.010	.403	.030	.427	.015
5	*Programming (Scheduling)*	.846	.081	.669	.266	.582	.155
All variables were included using forced-entry method							