

Home advantage in European international soccer: Which dimension of distance matters?

General comments

The manuscript is interesting and well written. The methodology is appropriate and there is a large amount of data.

However, I have some recommendations and observations.

Abstract

Abstract should be rewritten and more information added:

1. Specify the methodology used.
2. Specify the main results (only one result was cited).
3. The authors present only one conclusion of the study (What are the main conclusions of the study?).
- 4.

1. Introduction

1. "...moving from country-specific studies in Australia (Goumas, 2014a), Brazil (Pollard, Silva, & Medeiros, 2008), England (Clarke & Norman, 1995; Nevill, Newell, & Gale, 1996; Carmichael & Thomas, 2005), Germany (Oberhofer, Philippovich, & Winner, 2010), Greece (Armatas & Pollard, 2012), Spain (Sánchez, García-Calvo, Leo, Pollard, & Gómez, 2009; Saavedra, Gutiérrez, Fernández, & Sa Marques, 2015), **and** Turkey (Seckin & Pollard, 2008)..."

By citing the countries and, before Turkey, using "and", the author passes the idea that only these countries have been investigated. (i) Remove the word "and" and add "among others" after Turkey; or (ii) add other countries that have studies in their national leagues (e.g., Leite & Pollard (2018) analysed 47 countries)

2. "In addition, in Germany, Bäker et al. (2012) indicate that the home advantage vanishes whenever a match is a derby".

Some studies claim that this advantage is only smaller, but still can be there is (e.g., Leite & Pollard, 2018; Pollard, 1986; Seckin & Pollard, 2008), mainly using different stadiums for the teams, e.g., the dreby Corinthians (Pacaembu Stadium) and Palmeiras (Allianz Arena) in the city of São Paulo (Brazil) is different of the derby Milan and Internazionale (San Siro Stadium) in the city of Milan (Italy).

3. "We are not aware of any previous work investigating the importance of distance factors **(b)**, (c), or (d)..."

I think the author could rewrite the sentence. Pollard, Armatas & Sani (2017) and Watanabe Wicker & Yan (2017) analysed this aspect (references bellow).

4. *“To this end, we analyse 2,012 matches in the Union of European Football Associations (UEFA) Champions League and UEFA Europa League between 2008 and 2016. The match data are merged with country and city-level data...”*

I think this part should be within the methodology (sample).

2. Methods

2.1. Data

1. *“For more information on the regulations of the two competitions and the rules of a soccer match, we refer to the UEFA website (<http://www.uefa.com>) and to FIFA (2017)”*.

I think this information is unnecessary.

2. *“Again, these numbers highlight the relevance of this study’s key contribution to the literature, i.e. jointly investigating multiple distancerelated drivers of the home advantage in soccer”*.

I do not know if this sentence is good to put in the study. I believe that is not the case, but sometimes this kind of statement can pass on a certain kind of author's presumption. It is best for readers to come to this conclusion.

3. *A team does not play in its own stadium if its stadium does not meet the requirements of the UEFA, for example, at Zulte Waregem (Belgium) in 2013, or if there are security concerns, as at Shakhtar Donetsk (Ukraine) in 2014.*

Specify the countries of the teams. Some people can do not know the teams. What was the league? Champions League or Europe League?

The author presents some results in this section, perhaps it is better to reorder in the "results".

3. Results

3.1 Main Analysis

1. *“...and (iii) the expected number of points with 0.550, ceteris paribus”*.

I recommend use an English expression, a translate or a footnote. Not every reader will understand Latin.

2. *“We do not find evidence for the home advantage to be heterogeneous by the derby status of the match or the region of the country of the team...”*

Past? We did not find...

3. "A possible explanation for this may be that the available oxygen decreases with increasing altitude. Home team players are likely to be more adapted to performing well in the condition of low oxygen levels".

This is only one (perhaps the main) of the explanations for this phenomenon. Decreased air friction, higher ball velocity, etc. are also other explanations. In fact there is an interaction between some aspects.

Recommendation

I recommend the authors add a section (Conclusion) with the main conclusions of the study.

Observation

I also recommend the authors read more recent studies about this theme:

Leite, W., & Pollard, R. (2018). International comparison of differences in home advantage between level 1 and level 2 of domestic football leagues. *German Journal of Exercise and Sport Research*, 48: 271-277.

Almeida, C. H., & Volossovitch, A. (2017). Home advantage in Portuguese football: Effects of level of competition and mid-term trends. *International Journal of Performance Analysis in Sport*, 17(3): 244-255.

Staufenbiel, K., Riedl, D., & Strauss, B. (2016). Learning to be advantaged: The development of home advantage in high-level youth soccer. *International Journal of Sport and Exercise Psychology*, 14: 1-15.

Watanabe, N., Wicker, P., & Yan, G. (2017). Weather conditions, travel distance, rest, and running performance: The 2014 FIFA World Cup and implications for the future. *Journal of Sport Management*, 31: 27-43.

Goumas, C. (2017). Modelling home advantage for individual teams in UEFA Champions League football. *Journal of Sport and Health Sciences*, 6: 321-326.

Lago-Peñas, C., Gómez, M.Á., & Pollard, R. (2017). Home advantage in elite soccer matches. A transient effect? *International Journal of Performance Analysis in Sport*, 17(1-2): 86-95.

Pollard, R., Armatas, V., & Sani, S. (2017). Home advantage in professional football in Iran: differences between teams, levels of play and the effects of climate. *International Journal of Science Culture and Sport*, 5: 328-339.