Jens Koed Madsen May 29th, 2025

Football forecasting – harnessing the power of the crowd

Can the wisdom of the crowds predict football results? New research from **Jens Koed Madsen** *finds that asking a group of people to guess the outcomes of football matches can produce surprisingly accurate predictions.*

Football is a beautiful, if chaotic, game. Its inherent volatility and low-scoring nature mean that it is challenging to predict outcomes, as small changes during a match can have significant consequences. A favourite team may score early and decide to defend to conserve energy for an upcoming match. This would mean that the less favoured team can attack more and possibly score an unlikely equaliser in the final minutes.

Compared with major sports such as baseball, basketball, American football and handball, football is the sport where the favourite is least likely to win. Football is also a fluent game where chances are created in novel situations on a large pitch (compared with baseball, where the pitcher and the batter always stand in the same location at the same distance). Therefore, it is hard to predict what will happen in football, which makes it an interesting challenge.

Can the wisdom of the crowds predict football outcomes?

The wisdom of the crowds is the observation that asking a collective of diverse and independent individuals to make a guess about something often proves more accurate than the judgement of any one person in that crowd – and may even outperform experts.

Apocryphally, Francis Galton observed that when people tried to guess the weight of an ox in a country market, the median guess outperformed individuals. The wisdom of the crowds has been applied to a range of issues, such as politics and sports betting. More recently, it was noted that

betting markets were more certain of a Trump victory in 2024, even when pundits like Nate Silver predicted a toss-up.

In a recent paper, I tested if the wisdom of the crowds could predict the outcome of football games (who won?) and the level of dominance within games (how many chances did each team create?). To do so, people guessed how many goals each team would score for every match (for instance, "how many goals do you think Crystal Palace will score against Fulham" and vice versa) across the whole of the 2022/23 Premier League season.

I then took the averages for these guesses to get predictions for how well each team would do in a match. The predictions were then compared with actual match results and expected goals (XG), a metric that estimates the quality of chances. Expected goals are – quite simply – the probability that a chance should yield a goal. For example, if a team gets a penalty, it is a huge chance to score, but, as England fans know only too well, it is not a guarantee. In fact, penalties yield goals around 78% of the time. Therefore, if a team gets a penalty, their XG will increase by 0.78.

Collective intelligence

The study yielded interesting findings. First, the wisdom of the crowds outperformed the four players who participated across the entire season (the best individual performer guessed the outcome of 48.1% of matches while the wisdom of the crowds successfully predicted 52.1%). Second, the wisdom of the crowds reasonably predicts in-game dominance. While individual matches have a lot of variation (due to the dynamic nature of football), the model accounted for roughly 22% of the variance.

Third, interestingly, the I found inherent biases in crowd predictions. Participants tended to overestimate the performance of the so-called "big-6" teams in the Premier League (Arsenal, Chelsea, Liverpool, Manchester City, Manchester United and Tottenham) and underestimate newly promoted teams. This suggests that while collective intelligence is powerful, it is not immune to common biases. Finally, when comparing predictions to betting odds, the wisdom of the crowds pretty much broke even over the course of the entire season. This suggests that it is not a viable strategy for betting.

The wisdom of the crowds offers a fascinating glimpse into the potential of collective intelligence in sports forecasting. While it has limitations and biases, the wisdom of the crowds outperformed individuals across the season and had a good fit with actual XG for each match. It is entirely possibly that a fine-tuned wisdom of the crowds that weights biases for famous clubs would outperform the simple mechanism used in my study. In any case, it is a fascinating and fun glimpse into the world of sports forecasting. And one that I hope to extend in future projects.

For more information, see the author's accompanying paper.

Note: This article gives the views of the author, not the position of EUROPP – European Politics and Policy or the London School of Economics. Featured image credit: Victor Velter / Shutterstock.com

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