JSSM Journal of Sports Science & Medicine

ISSN: 1303 - 2968

ISI 2014 IF 2-Year: 1.025 5-Year: 1.441 Average Citations per item: 5.2

SCOPUS 2013 SJR: 0.56 Cites per Doc. 2-Year: 1.05 3-Year: 1.38 4-Year: 1.57

Research article

Predicting the Match Outcome in One Day International Cricket Matches, while the Game is in Progress

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Received: -- -- Accepted: -- -- Published (online): 15-12-2006

ABSTRACT

Millions of dollars are wagered on the outcome of one day international (ODI) cricket matches, with a large percentage of bets occurring after the game has commenced. Using match information gathered from all 2200 ODI matches played prior to January 2005, a range of variables that could independently explain statistically significant proportions of variation associated with the predicted run totals and match outcomes were created. Such variables include home ground advantage, past performances, match experience, performance at the specific venue, performance against the specific opposition, experience at the specific venue and current form. Using a multiple linear regression model, prediction variables were numerically weighted according to statistical significance and used to predict the match outcome. With the use of the Duckworth-Lewis method to determine resources remaining, at the end of each completed over, the predicted run total of the batting team could be updated to provide a more accurate prediction of the match outcome. By applying this prediction approach to a holdout sample of matches, the efficiency of the "in the run "wagering market could be assessed. Preliminary results suggest that the market is prone to overreact to events occurring throughout the course of the match, thus creating brief inefficiencies in the wagering market.

Key words: Linear regression, live prediction, market efficiency, betting

Key Points

- In excess of 80% of monies wagered on the outcome of ODI matches are placed after the match has commenced.
- Using all past data from ODI matches, multiple linear regression models are constructed to predict team totals and margin of victory.
- By combining match information with prediction models, an 'in the run' prediction process is created for ODI matches.