**ANALYZING DETERMINANTS OF TEAM SUCCESS IN THE ENGLISH PREMIER LEAGUE**

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Football match outcomes are influenced by a complex mix of tactical, psychological, and statistical factors. This research aims to investigate the key factors of team success in the English Premier League (EPL) by analyzing a wide range of variables, including home advantage, disciplinary records (yellow/red cards), squad market value, historical trophy counts, and other performance-related metrics. We planned to apply machine learning modeling. Via using explainable machine learning, we will reveal which factors have a statistically significant impact on a team’s likelihood of securing a positive result (win/draw). Additionally, we implement both linear and non-linear machine learning models for predicting match outcomes, and define the best performing model in match outcome prediction. We aim to assess the consistency and explanatory power of different approaches in evaluating team performance. Our study will also explore how these factors act over time and whether certain predictors become more or less relevant depending on league trends or managerial changes. The findings of this research could provide valuable insights for football analysts, coaches, sports bettors, and club management, contributing to a deeper understanding of the key drivers of success in one of the world’s most competitive football leagues.

**Keywords: Football analytics, Premier league**, Machine learning, Home advantage, Disciplinary records

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