Paper title - PREDICTION OF PLAYER PRICE IN IPL AUCTION USING MACHINE LEARNING REGRESSION ALGORITHMS

Paper link - https://ieeexplore.ieee.org/document/9198668

Summary -

1.1. Motivation - The motivation behind this paper is to use machine learning algorithms to predict the prices of players in IPL. By analyzing the past performance data like runs, wickets, played matches and more the prices of the players were determined. Besides, the inclusion of an inflation factor and mapping it to the budget enhanced the model's ability to provide realistic price predictions.

1.2. Contribution - This paper uses the machine learning approach to predict player prices in IPL. It leverages past performance data to predict price. It also incorporates an inflation factor with the budget to predict prices more accurately.

1.3. Methodology - This paper uses a machine learning approach to predict player prices based on previous historical data. It starts by collecting historical data. Next , the data was preprocessed and introduced some additional features to enrich the dataset. For the predictive modeling phase the authors experimented with machine learning algorithms such as linear regression, decision trees, random forests and gradient boosting machines. After that to enhance the model's accuracy the inflation factor was introduced which incorporated the budget constraints. Finally, the authors validated the model using cross-validation techniques. To sum up, the methodology includes machine learning algorithms and domain specific knowledge to build an effective predictive model for IPL player prices.

1.4. Conclusion - To sum up, this paper proposed a robust methodology to predict the player prices of IPL using various machine learning algorithms.

Besides, the introduction of the inflation factor improved the success rate by a significant margin. Overall, the methodology of this paper offers a valuable decision making tool for IPL team management and stakeholders to make more informed choices during IPL auctions.

2. Limitations

2.1 Limitation 1 - Data availability - The accuracy and generalizability of the methodology of this paper heavily depend on the availability and quality of the historical player performance data. Limited access to comprehensive and reliable datasets particularly for certain player performance attributes may constraint the model's effectiveness.

2.2 Limitation 2 - External factors - The predictive accuracy of this model may be impacted by external factors beyond the scope of the dataset such as injuries, current form of the player, team strategies, market dynamics and so on. The inflation factor may not fully capture the complexities and uncertainties of the IPL auction process. Thus, unexpected events could affect the model's performance.

3. Synthesis - This paper introduces a new approach to predict player prices in the IPL using machine learning algorithms using historical ipl player performance data. The primary innovation of this paper is the development of a comprehensive framework that considers various factors affecting player prices. Nevertheless, the paper has some limitations, including data availability, challenges and external factors like changes in player form, team strategies and many more which can impact auction dynamics.