

~~Final Match~~ Report

Premier  League

English Premier League Data Analysis Report (2010-2020)

Team Members:

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Introduction

The English Premier League (EPL) is widely regarded as one of the most competitive football leagues in the world. This analysis aims to uncover patterns in team performance, strategies, and factors influencing match outcomes using statistical data from the past decade (2010-2020). The goal is to provide insights that can assist teams, coaches, and sports analysts in making informed decisions.



Problem Statement

This analysis focuses on:

- Identifying consistent top-performing teams.**
- Understanding team performance trends (improvement or decline).**
- Investigating how goal differences impact standings.**
- Analyzing the correlation between offensive and defensive strategies and league positions.**

Data Collection and Exploration

Data sources include:

- Match results, player statistics, team performance metrics, financial investments, and manager records.

Key exploratory questions include:

- Which clubs were most consistent in finishing at the top from 2010-2020?
- What are the trends in goals, assists, and match outcomes over the seasons?
- How did team performance change under new coaches?

Data Cleaning and Feature Engineering

- Missing values in crucial columns (goals, player stats) were reviewed.
- Team names were standardized, and duplicate records were resolved.
- Ensured date formatting consistency across the seasons.

Advanced Data Analysis

Key focus areas included:

- Investigating home advantage in match outcomes.**
- Analyzing the effect of mid-season player transfers on performance.**
- Identifying top players based on contributions to team success.**
- Correlating team investments with on-field performances.**
- Analyzing team performances in high-pressure matches.**

key Findings

- Clubs with strong defensive records (fewer goals conceded) consistently finished higher in the league.**
- Goal differences (goals scored vs. conceded) had a significant impact on final standings.**
- Player transfers often disrupted team performance but also led to improvements in certain cases.**
- Teams that invested more financially had a higher probability of finishing in the top tier.**

Conclusion and Insights

The analysis highlights the critical role of defense, financial investment, and strategic planning in securing high league positions. The EPL is highly competitive, and consistent performance requires a balance between offensive and defensive focus.