

IPL ANALYSIS

Prepared by: Manasvi Shetty

Project: IPL Data Analysis using Power BI / Tableau

Date: 31/08/2025

.....

◇ Introduction

The Indian Premier League (IPL) is one of the most popular cricket leagues globally, featuring competitive matches, star players, and significant fan engagement. The goal of this project is to analyze IPL match and player data to derive insights about team performance, player contribution, match venues, and winning patterns.

◇ Objectives

1. Perform exploratory data analysis (EDA) on IPL datasets.
2. Visualize key performance indicators (KPIs) using Power BI/Tableau.
3. Generate insights on teams, players, venues, and match outcomes.
4. Provide an interactive dashboard for data-driven decision-making.

◇ Data Cleaning & Preparation

- **Removed duplicates** while ensuring no loss of match, innings, and ball-level data.
- **Handled missing values:** e.g., blank city values replaced based on venue information.
- **Standardized formats** for team names, player names, and venues.
- **Validated consistency** across season years, match IDs, and outcomes.

◇ Analysis & Visualizations

1. Team Performance

- **Most Successful Team:** Mumbai Indians (MI) and Chennai Super Kings (CSK) have the highest win percentages.
- **Win Trends:** MI dominates in recent seasons, while CSK shows consistent playoff appearances.

- **Toss Impact:** Winning the toss has ~51% influence on match results, showing a mild but not decisive impact.

2. Player Performance

- **Top Run Scorers:** Virat Kohli, Suresh Raina, Rohit Sharma are consistent run contributors.
- **Top Wicket Takers:** Lasith Malinga, Dwayne Bravo, Sunil Narine rank among the leading bowlers.
- **Orange Cap Trends:** Batsmen from RCB and SRH dominate most seasons.
- **Purple Cap Trends:** Bowlers from MI and CSK are frequently leading wicket-takers.

3. Venue Analysis

- **Most Matches Hosted:** Eden Gardens, Wankhede Stadium, M. Chinnaswamy Stadium.
- **Home Advantage:** Teams like CSK and MI perform exceptionally well at their home venues.
- **High Scoring Grounds:** Chinnaswamy Stadium (Bengaluru) and Wankhede (Mumbai) favor batsmen.

4. Match Insights

- **Winning Margins:** Most matches are won by small margins (<20 runs or <5 wickets), reflecting close competition.
- **Chasing vs Defending:** Chasing teams win slightly more matches, especially in night games.
- **Super Overs:** Rare but highly impactful; seen in critical knockout games.

5. Season-Wise Trends

- **Rise in Scores:** Average runs per match have increased over the years due to aggressive batting.
- **Emerging Players:** Each season introduces impactful young players (e.g., Shubman Gill, Ruturaj Gaikwad).
- **Foreign Players:** Overseas players contribute heavily in both batting and bowling, highlighting IPL's global appeal.



◆ Key Insights

1. **Mumbai Indians (MI)** are the most dominant team overall.
2. **Toss does not guarantee a win** – only a slight edge.
3. **Batsman-friendly venues** like Chinnaswamy & Wankhede consistently produce high scores.
4. **Bowling depth** is crucial for winning championships – seen in teams like MI & CSK.
5. **Player consistency matters** – Kohli, Raina, Rohit, and Dhoni are match-winners across seasons.
6. **Home advantage is significant**, especially for CSK at Chepauk.

➤ Recommendations

For Teams

1. **Toss Decisions** – Prefer chasing, especially in high-scoring venues.
2. **Player Strategy** – Build squads with balanced **death-over hitters and spinners**.
3. **Venue Advantage** – Adapt bowling strategies depending on ground (pace at Wankhede, spin at Chepauk).

For BCCI/IPL Organizers

1. **Balanced Scheduling** – Ensure fair distribution of venues to reduce “home advantage bias.”
2. **Engagement Boost** – Use Power BI/Tableau dashboards for real-time fan engagement.
3. **Data-Driven Auctions** – Teams can analyze past performance data to bid strategically.

For Broadcasters & Analysts

1. Highlight **key match-up stats** (e.g., bowler vs. batsman head-to-head).
2. Showcase **real-time win probability graphs** to enhance viewer engagement.

◇ Conclusion

The IPL is not just about individual brilliance but also about team balance and strategies. Teams with strong middle-order batsmen and bowling depth dominate the league. While toss and venue have moderate influence, adaptability and player form remain decisive factors.

This analysis provides valuable insights for **team strategies, fan engagement, broadcasters, and analysts**, and can be expanded further using predictive modeling for match outcomes and player performance forecasting.
