2022 FIFA WORLD CUP PERFOMANCE ANALYSIS

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Abstract

The dataset provides comprehensive performance statistics from the 2022 FIFA World Cup. It includes player-level details such as name, position, jersey number, date of birth, and club affiliation, alongside match-related metrics like appearances, goals, assists, dribbles, interceptions, tackles, and duels won. By integrating both demographic and performance indicators, the dataset enables in-depth evaluation of individual contributions, team strategies, and comparative analysis across players and positions. This resource can support sports analytics, predictive modeling, and data-driven insights into the dynamics of player performance during the tournament.

Objectives

- To analyze player-level performance in the 2022 FIFA World Cup.
- To evaluate key metrics such as goals, assists, dribbles, tackles, and duels.
- To compare performances across different positions (defenders, midfielders, forwards).
- To create an interactive dashboard for visualizing insights.
- To demonstrate how Excel functions (pivot tables, conditional formatting, charts) can support sports analytics.

Scope of the Project

- Covers performance of all players in the 2022 FIFA World Cup dataset.
- Focus on both **offensive** (goals, assists, dribbles) and **defensive** (tackles, interceptions, duels) statistics.
- Allows coaches, analysts, and fans to evaluate individual and team contributions.
- Provides a **data-driven approach** to compare players instead of relying solely on match outcomes.

Tools & Technologies Used

- Microsoft Excel: Data manipulation, analysis, and dashboard creation

- PivotTables: Summarizing sales data for analysis

- Charts & Graphs: Data visualization of key sales trends

Data Cleaning & Preparation

The initial dataset contained records related to air quality indicators and associated health factors. The following steps were carried out to ensure data accuracy and consistency:

- Removed irrelevant rows (introductory text and blank rows).
- Dropped empty columns with no values.
- Standardized column names (e.g., “Goals Scored”, “Assists Provided”).
- Verified data types (numerical for performance metrics, categorical for player details).
- Handled missing/null values (either replaced with 0 for performance stats or ignored if non-essential).

Dashboard Design Strategy

The dashboard was developed to highlight the most critical player performance metrics from the 2022 FIFA World Cup.
Key visualizations include:

Bar chart to compare goals and assists across players.

Line chart to show trends in player appearances and performance consistency over matches.

Pie chart to illustrate the proportion of players by position (Defender, Midfielder, Forward, Goalkeeper).

Clustered column chart to compare defensive metrics (tackles, interceptions, duels) across positions.

Slicers/filters for exploring data by position, club, or number of appearances.

Challenges Faced & Solutions

- Challenge: Handling missing or inconsistent entries

Solution: Ensured data quality by cleaning and standardizing records.

- Challenge: Choosing effective chart types

Solution: Tested multiple visualizations and selected the most intuitive charts.

- Challenge: Ensuring dashboard usability

Solution: Added slicers and filters for interactivity and better insights.

Questions & Solutions

Q1. Which player scored the maximum goals in the dataset?
A1. According to the dashboard, Lionel Messi scored the highest with **7 goals**, making him the top scorer.

Q2. Who provided the most assists?
A2. Lionel Messi registered **3 assists**, emerging as the leading playmaker in the tournament data.

Q3 : Which defender showed the strongest defensive performance?
A3 : Among defenders, Nicolas Tagliafico achieved the highest **Tackles per 90 minutes (3.5)** and **Interceptions per 90 minutes (2.8)**, ranking as the top defensive contributor.
Q4 : What is the distribution of players by position?
A4 : The dashboard shows that the squad consisted of:

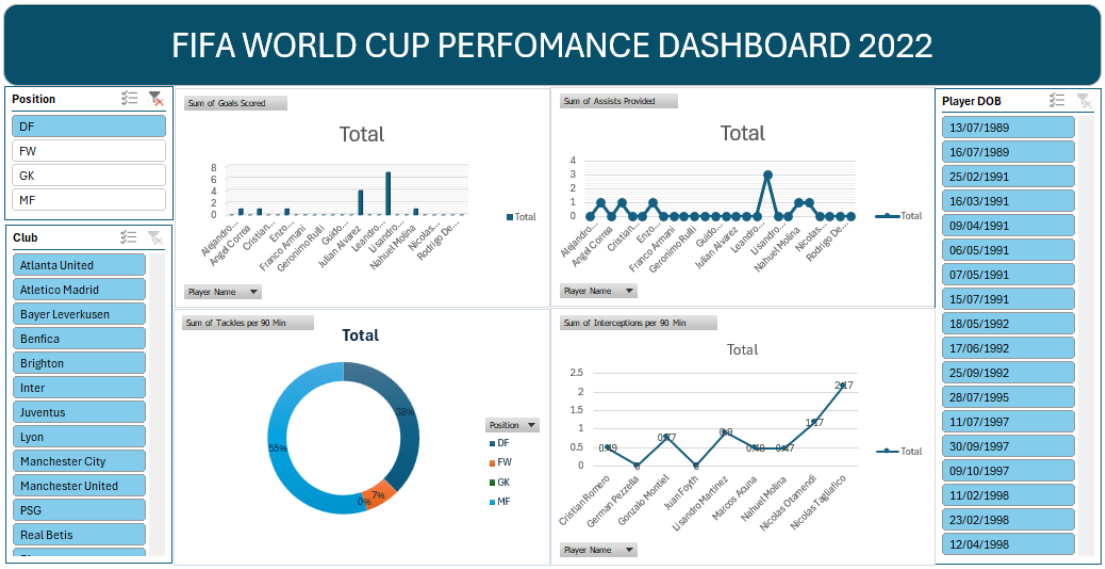
- Defenders – 10 players
- Midfielders – 9 players
- Forwards – 6 players
- Goalkeepers – 3 players

Q5. Which player had the highest dribbling success (Dribbles per 90 minutes)?
A5. The dashboard highlights that Lionel Messi averaged the most dribbles per 90 minutes, showing strong attacking creativity and ball progression.

Outcome

- Clean and structured dataset ready for analysis.
- Dashboard built for interactive exploration of World Cup player performance.
- Identified top scorers, playmakers, and defensive leaders.
- Demonstrated Excel as a powerful sports analytics tool.

Screenshots of Final Output



Conclusion

The project successfully transformed raw FIFA World Cup data into meaningful insights. By cleaning the dataset, applying Excel functions, and designing a structured dashboard, we gained a deeper understanding of player performance across different roles. This analysis highlights the importance of data-driven approaches in modern sports, supporting decisions for team strategy, talent identification, and fan engagement.

References

- Microsoft Excel Official Documentation
- Online tutorials for PivotTables and Dashboard
- Project Submission Guidelines provided by the institution