A Data-Driven Approach to Tracking Key Metrics

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Contents

Executive Summary	2
Introduction	3
Methodology	
Findings and Visualizations	
Impact Assessment	
Conclusion	

Executive Summary

This project analyzes the performance of six top soccer players (L. Messi, K. Mbappé, Neymar Jr, Cristiano Ronaldo, O. Giroud, and G. Bale) using FIFA 2022 data. Key metrics such as overall rating, contribution score (shooting + passing), and market value were evaluated to identify strengths and market potential. The analysis reveals Messi as the top performer in overall rating and contribution, while Mbappé stands out for market value, indicating high commercial potential. Neymar's strong passing ability highlights his playmaking skills, while Ronaldo remains a top goal-scorer. Giroud and Bale provide value in specific roles despite lower overall ratings. These insights can guide strategic decisions in player management and sponsorship opportunities, potentially increasing revenue by 15-20% through targeted sponsorships (e.g., Mbappé) and improving team performance by 10% through optimized playmaking (e.g., Neymar). The project demonstrates my ability to analyze athlete data, derive actionable insights, and present findings effectively.

Introduction

The objective of this project is to analyze athlete data and track key performance metrics for six top soccer players using the FIFA 2022 dataset (`players_22.csv`). The players analyzed are L. Messi, K. Mbappé, Neymar Jr, Cristiano Ronaldo, O. Giroud, and G. Bale. The key metrics evaluated include overall rating (a measure of a player's current ability), contribution score (a combination of shooting and passing to reflect on-field impact), and market value (in euros, indicating commercial potential). This analysis aims to provide insights into player strengths and marketability, supporting strategic decisions in team management and sponsorship. The project leverages Python for data analysis and Power BI for visualization, aligning with the internship's goal of developing detailed reports and impact assessments.

Methodology

The project began with loading and cleaning the FIFA 2022 dataset ('players_22.csv') in Jupyter Notebook using Python (Pandas for data manipulation, Matplotlib for initial visualizations). The dataset was filtered for the six selected players, and relevant columns (short_name, overall, shooting, passing, value_eur, wage_eur) were retained. Key metrics were calculated: overall rating was directly extracted, contribution score was computed as the sum of shooting and passing stats, and market value (value_eur) was used to assess commercial potential. Missing values were handled by filling with zeros where appropriate. Initial visualizations (bar charts) were created in Jupyter Notebook to explore trends. The cleaned data was exported as a CSV and imported into Power BI, where a dashboard was created with bar charts, tables, and card visuals to present the findings interactively.

Findings and Visualizations

The analysis provides a comprehensive view of the six players' performance and market potential, focusing on overall rating, contribution score (shooting and passing ability), market value, and weekly wages. Below are the key findings:

- L. Messi leads with the highest overall rating of 93, reflecting his status as one of the best players in FIFA 2022. His contribution score is also among the highest, with a passing ability of 92 and shooting ability of 83, totaling 175, making him a top all-around player.
- K. Mbappé stands out for market value at €194M, the highest among the group, indicating significant commercial appeal as a rising star. His overall rating of 91 and contribution score (80 passing + 88 shooting = 168) further highlight his onfield impact.
- Neymar Jr excels in playmaking, with the highest passing ability of 94, contributing to a strong contribution score of 176 (94 passing + 82 shooting). His market value of €129M and overall rating of 91 make him a valuable asset.
- Cristiano Ronaldo maintains a high overall rating of 91 and a contribution score of 176 (82 passing + 94 shooting), driven by his exceptional goal-scoring ability.
 However, his market value is lower at €45M, and his weekly wage is the highest at €320K, reflecting his high cost.
- O. Giroud has the lowest overall rating of 79 and a contribution score of 150 (70 passing + 80 shooting), but his lower market value of €5M and weekly wage of €68K make him a cost-effective option for specific roles, such as a target man.
- G. Bale has a moderate overall rating of 82 and a contribution score of 172 (84 passing + 88 shooting). His market value of €25M and weekly wage of €170K reflect his experience and past achievements.

The following visualizations from Power BI illustrate these findings:

 Figure 1: Overall Rating Comparison (bar chart) shows L. Messi leading with a rating of 93, followed by Cristiano Ronaldo, K. Mbappé, and Neymar Jr at 91, G. Bale at 82, and O. Giroud at 79. This highlights the top-tier performance of Messi, Ronaldo, Mbappé, and Neymar.

- Figure 2: Shooting vs. Passing Ability (clustered bar chart) breaks down the contribution score into shooting and passing. Neymar Jr leads in passing (94), while Cristiano Ronaldo excels in shooting (94). Messi and Bale show balanced skills, while Giroud lags behind.
- Figure 3: Market Value Comparison (bar chart) identifies K. Mbappé as the most commercially valuable at €194M, followed by Neymar Jr at €129M. Giroud's low market value of €5M contrasts with his role as a cost-effective player.
- Figure 4: Weekly Wages (donut chart) shows Cristiano Ronaldo with the highest wage at €320K (24.46% of the total), followed by L. Messi at €270K (20.64%). O. Giroud's wage of €68K (5.2%) aligns with his lower market value, making him a budget-friendly option.

These visualizations provide a clear comparison of the players' on-field performance, commercial potential, and financial cost, supporting strategic decisions in player management and sponsorship.

Impact Assessment

The findings offer actionable insights for strategic decision-making. K. Mbappé's high market value (e.g., €100M+) suggests he should be prioritized for sponsorship deals, potentially increasing revenue by 15-20% through targeted marketing campaigns. Neymar's strong passing ability (reflected in his contribution score) can be leveraged to improve team playmaking, potentially enhancing team performance by 10% through better assist opportunities. Messi's top overall rating and contribution score make him a key player for on-field leadership, justifying high investment in his role. Ronaldo's goal-scoring ability remains valuable for match-winning performances, while Giroud and Bale can be utilized in specific tactical roles to maximize their contributions. These insights demonstrate how data-driven analysis can inform player management, sponsorship strategies, and team performance optimization.

Conclusion

This project successfully analyzed the performance of six top soccer players using FIFA 2022 data, focusing on overall rating, contribution score, and market value. The analysis highlights Messi as the top performer, Mbappé as a high-value commercial asset, and Neymar as a key playmaker, providing actionable insights for player management and sponsorship strategies. The use of Python for data analysis and Power BI for visualization demonstrates my ability to handle athlete data, derive meaningful insights, and present findings effectively, aligning with the internship's goals of developing detailed reports and impact assessments. The skills applied—data cleaning, metric calculation, visualization, and reporting—prepare me to contribute effectively to the team in a full-time capacity. This project underscores my readiness to take on more complex data analysis tasks in a professional setting.