Manchester United Analysis 22-23

Deepesh Dwivedi

June 22, 2023

Contents

1 Abstract

The following report presents an analysis of Manchester United, one of the most prestigious football clubs in the world. This analysis aims to provide insights into various aspects of the team's performance, including player statistics, team dynamics, and overall strategies. By examining key data points and utilizing visualization techniques, we explore the team's strengths, weaknesses, and potential areas for improvement.

The analysis focuses on different positions on the field, such as attack, midfield, defense, and goalkeeper. Statistical measures such as goals, assists, passes completed, interceptions, and save percentages are utilized to assess individual player performances. Additionally, team-level metrics, including possession, shots on target, and goals conceded, are examined to gauge overall effectiveness and playing style.

Through the use of Tableau, interactive dashboards and visualizations have been created to enhance the understanding and presentation of the data. These visual representations allow for a comprehensive exploration of Manchester United's performance, facilitating the identification of trends, patterns, and standout players.

By providing this analysis, it is hoped that decision-makers, coaches, and fans can gain valuable insights into Manchester United's performance, contributing to informed discussions and strategies for future success.

Based on the analysis I am trying to solve a major problem which been pivotal in the failure of winning trophies for Manchester United which is

- **Scouting Players** Since years after the retirement of Sir Alex Fergusson (Ex Manager of Manchester United, who is responsible for all the success the club has achieved in recent past), it has been observed that United have time and again spent enormously huge amount on players which do not directly fit into the system. Players which are incompatible. To solve this, I am suggesting impact players in my analysis.
- **Aged Players** Time and again Manchester United preferred an over aged star player over a young talented prospect. I intend to solve this problem as well with my analysis.
- **Over spending** My aim is also to solve this problem of Manchester Untied over spending on star players over a young talented prospect which can come cheaper. I did not have the data to recommend considering the price , that is definitely the future scope of this scouting project

To answer these questions, there is a requirement to visualise data in a way where one can get meaningful insights and get the right information to make interesting and data-driven strategies. To that end, Tableau was used.

While Tableau is a powerful BI tool, which can handle large volumes of data, and the data can be connected any way that one wants. To that end, Tableau 2023 Professional edition was used to showcase and analyse the data, and create interactive dashboards.

Here the Decision Maker is **Manchester United**, I am merely providing analysis on which players they should target in the on going transfer window.

2 The Data

Got the European Football players data from Football Manager Scout. Then got the teams win and loss data from Kaggle. Statistics were calculated based on the formulas on Opta and also referred some statistics from Opta.

3 Data Explanation

Below are the features which are combined together based on the similarity and usage

3.1 Passing and Creativity:

PasTotCmp (Passes Completed): Represents the number of passes completed by the player. PasTotAtt (Passes Attempted): Indicates the total number of passes attempted by the player. PasTotCmp% (Pass Completion Percentage): Shows the percentage of passes completed by the player. Assists: Indicates the number of goals directly assisted by the player. PasAss (Passes Leading to a Shot): Represents the passes that directly led to a shot by a teammate. Pas3rd (Passes into the Final Third): Indicates the completed passes that entered the attacking third of the pitch closest to the goal. PasProg (Progressive Passes): Represents completed passes that move the ball towards the opponent's goal at least 10 yards from its furthest point in the last six passes or any completed pass into the penalty area.

3.2 Shooting and Goal-Scoring:

Goals: Indicates the number of goals scored by the player. Shots: Represents the total number of shots taken by the player (excluding penalty kicks). SoT (Shots on Target): Indicates the number of shots on target (excluding penalty kicks). SoT% (Shot on Target Percentage): Shows the percentage of shots on target. G/Sh (Goals per Shot): Represents the average number of goals scored per shot. G/SoT (Goals per Shot on Target): Indicates the average number of goals scored per shot on target. ShoDist (Shot Distance): Represents the average distance, in yards, from the goal of all shots taken (excluding penalty kicks). ShoFK (Free Kick Shots): Indicates the number of shots taken from free kicks. ShoPK (Penalty Kicks Made): Represents the number of penalty kicks scored.

3.3 Defensive Contributions:

Tkl (Tackles): Represents the number of tackles made by the player. TklWon (Tackles Won): Indicates the tackles in which the player's team won possession of the ball. Blocks: Represents the number of times the player blocked the ball by standing in its path. Int (Interceptions): Indicates the number of times the player intercepted the ball. Clr (Clearances): Represents the number of times the player cleared the ball. Recov (Ball Recoveries): Indicates the number of loose balls

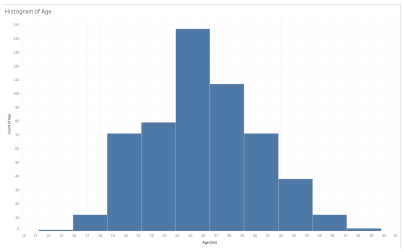
recovered by the player.

3.4 Other Relevant Contributions:

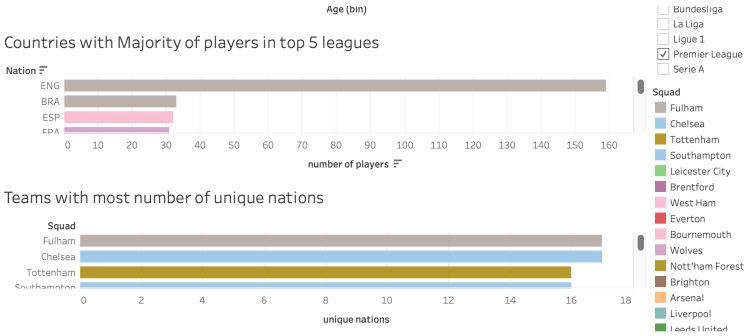
Touches: Indicates the number of times the player touched the ball. CrdY (Yellow Cards): Shows the number of yellow cards received by the player. CrdR (Red Cards): Indicates the number of red cards received by the player. Fls (Fouls Committed): Indicates the number of fouls committed by the player. Fld (Fouls Drawn): Represents the number of fouls drawn by the player. Off (Offsides): Indicates the number of times the player was called offside. Please note that this clustering is not exhaustive, and there may be additional features that could be grouped together based on specific analysis requirements or patterns in the data.

4 Analysis

Starting our analysis, we delve into the current status of football players in Europe We will do the basic descriptive statistics regarding the Age distribution of players.



(a) Age Distribution



(b) Country Wise Analysis

Figure 1: Basic Analysis of European Football Players

4.1 Current Situation in Europe

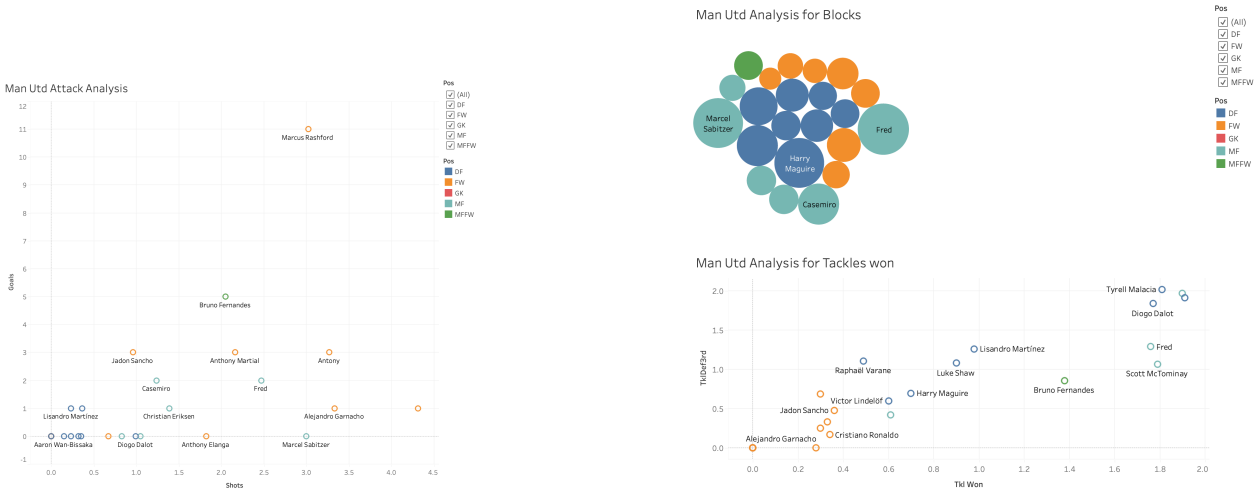
From the available data, based on the figure (a), we can see that the average age of European footballer is between 24-26 years based on the histogram. This suggests that this is the age where players hit their prime. Main objective of this analysis is to suggest players who are under 24 to Manchester United. These are the players which exhibit high potential and have a possibility of having a lower market price.

In the second figure, I am doing the analysis of distribution of countries in each league. Based on the screen shot here I selected Premiere League hence naturally there are majority of English players. In the second graph of same image, I tried to find which club has the maximum number of foreign players. According to the result of this insight, middle table clubs are more international and inclusive as compared to the top 6 (Manchester United, Manchester City, Arsenal, Liverpool, Chelsea & Tottenham) in the premiere league. Diversity brings different attributes and playing

style which can help progress. This is one point which I would like to highlight for Manchester United.

4.2 Manchester United Attack Analysis

Here, I did the analysis on the attacking attribute of Manchester United. Here I am plotting a scatter plot for Goals and shots taken. This gives us an insight on which players are clinical and which are not.



(a) Manchester United Attack

(b) Manchester United Defense

Figure 2: Manchester United Current Analysis

Here in the first figure, we can see that only **Marcus Rashford** is in fine form. He is clinical and lethal in front of the goal. But a top team cannot have just one player who is scoring all the goals. The team desperately needs clinical attacker. I have presented the solution for this problem ahead.

In the second figure, we did the analysis on the defensive attributes of Manchester United. Here I plot a Bubble chart of players with number of blocks they made. The bigger the size the higher the number of blocks they made. In Manchester United, there is only 1 defender who has the significant size of the bubble. This is also one of the main problem of Manchester United conceding more goals as compared to their rivals. In the next sections I have provided a solution to tackle this problem.

4.3 Manchester Competitor Analysis

Here I selected 8 metrics which are super relevant based on how a team should possess in order to dominate the game and score goals. These metrics are Goals per shot, Aeriel Prowess, Passes Completed, Progressive passes, Crosses in opposition box, Touches in attacking third, Player progress analysis.

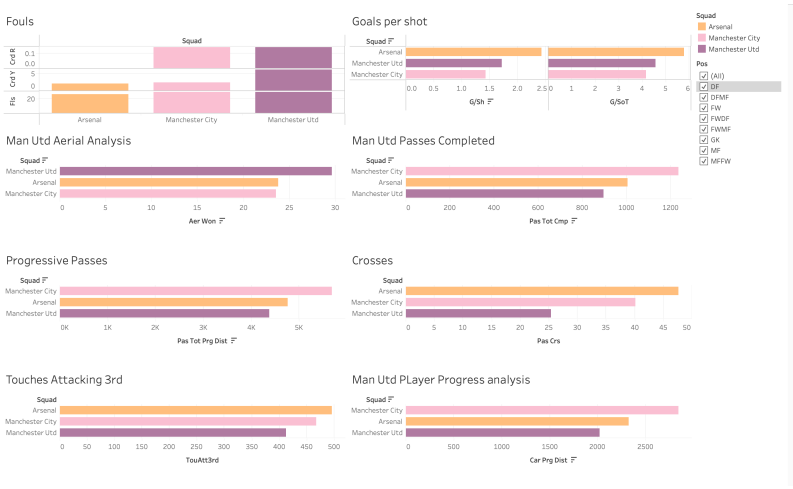


Figure 3: Manchester United's Competitor Analysis

Here we can see that Manchester United is ahead of the two rivals in terms of fouling opponet team's players which is not exactly a positive metric. Manchester united is ahead in Aeriel Prowess as compared to the rivals which is good but on the other hand they are really behind in terms of Crosses into the box. With significantly less number of crosses, Manchester United cannot fully take advantage of the aeriel prowess. This dashboard evidently shows there is a significant room for improvement.

4.4 Goals and Assist Analysis of Young Talents

Here I am selecting only those players with **Age below 24**. In this dashboard, I have given user the facility of choosing which league he wants and it will retrieve the results accordingly. For the below image, I have selected Premier League as the competition since the team in subject plays in Premiere League.

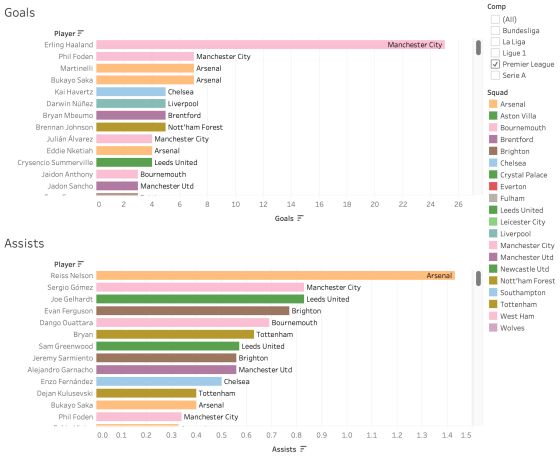


Figure 4: Goals & Assists of Young Players

Here, evidently **Erling Haaland** is dominating the Premiere League. This analysis gives insights on top attacking targets Manchester United can consider but these are super expensive players.

4.5 Goal Keeper Analysis

In modern football, you need a keeper who can not only save but also create the game play from defense. You need a Goal keeper who possess the ability to successfully pass under pressure. In the below analysis, we figured out these goal keepers have an extra edge on conventional traditional goal keeper.

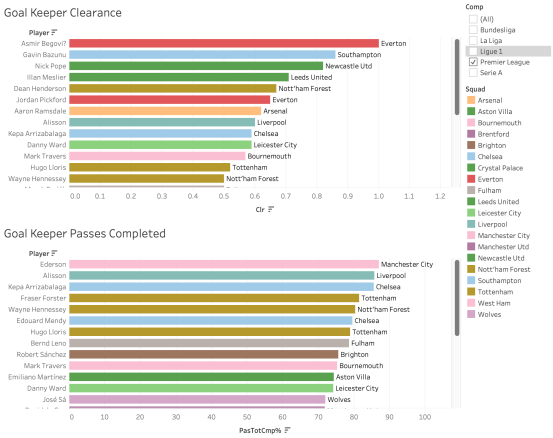


Figure 5: Goal Keeper Analysis

5 Recommendations

Now we have come to the heart of this Analysis, The Recommendations. Below is the image of the dashboard of Impact Players.

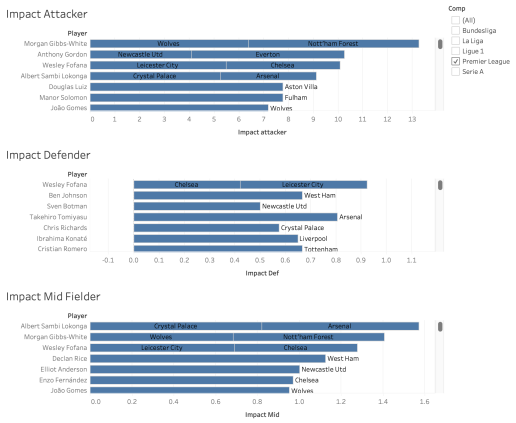


Figure 6: Impact Players Suggested based on Analysis

Here I created 3 calculated fields one for each area of Impact (Attack , Defense & Mid Field).

(a) Impact Attacker (b) Impact Defender (c) Impact Mid Fielder

Figure 7: Impact Players

- **Impact Attacker** Here I selected relevant factors such as goals , assists , shots on target, Goal creating actions, successful dribbles, attempted pass and number of defenders taken on. These factors I believe are super important in an impactful attacker. Here all the players retrieved are below 24 years old. These are top talented prospects which exhibit all qualities of an impactful player. Here I gave an option of playing with the league.

- **Impact Defender** Here I selected factors such as Tackles , Interceptions , Clearances , blocks and removed the errors which lead to goal. I took the weighted average and calculated the impact. These are the factors which an impactful defender must possess. These factors are cross referenced with Opta stats.

- **Impact Mid Fielder** Here I selected factors such as Total passes completed, total Progressive Passes made, Shot creating actions, tackles , interceptions and goal creating actions. Took weighted average of them and calculated the impactful mid fielder.

- **Goal Keeper** As I suggested before, in modern football you need a ball playing goal keeper as in someone who is comfortable on the ball. Someone with more number of successful pass completion.

Going Moneyball in any sport pays you well. I believe we need to take decision in sports purely based on statistics and analysis. Manchester United finished 3 in 22-23 season, my main objective of helping them in scouting is that for the next season they can prepare themselves and charge for title. Currently the transfer market is open and it will be active till 31st August.

6 Future Scope

In the future scope if I get trustworthy market price data of players, then I would take into consideration the price of the players while giving recommendation for young potential prospects. Currently, I could not find it.

Also I would like in game statistics data , so that for next project I can I can show time evolution of players to understand whether players are rectifying their mistakes and improving or not.