

ISSUE | 1

FEBURARY 2019

# GAME

## SOCCER SUPERSTARS

Find out the top players and clubs in the world.

## INSIGHT OF THE GAME

Get real insight of the game.

## #1 CLUB IN THE WORLD

Go through the report to find out.



# FOOTBALL ACROSS THE GLOBE

Football nowadays is more than just a sport, it has so much of emotions involved . For few people in the world is life for them not just the players who are playing it but people who are managing the team or a huge fan. Football is not just played for entertainment it is business now and huge amount of investments are done in these game. So, each team in the world be it be the club team or the national team everyone wants the best players in there team who will win matches for them.

So a huge amount of research and analyses is done before signing the player for the team on the basis of contract of few years depending upon the agreement, Competition is reach a new level every day with each and every player raising there own performance level because a single mistake can cost players there carrier. Football has been around in for quite a few years and have been played in almost each and every country of the world providing some incredible players to this game the world has ever seen but each player has a different market value based on the performance it puts. So, a analyses of players based on market value across the world is done here .

Composition of average market value of players is analysed here so a Treemap is used. Size of the box represents average market value of players in that country, bigger box representing higher market value and smaller box representing lower market value. Different shades of red and gold have been used to show average highest rated across country. Red signifies more popular and hence this color has been used. England has the highest average market value of player with a value of around 700 followed by Spain.

Market Value of Players by Country

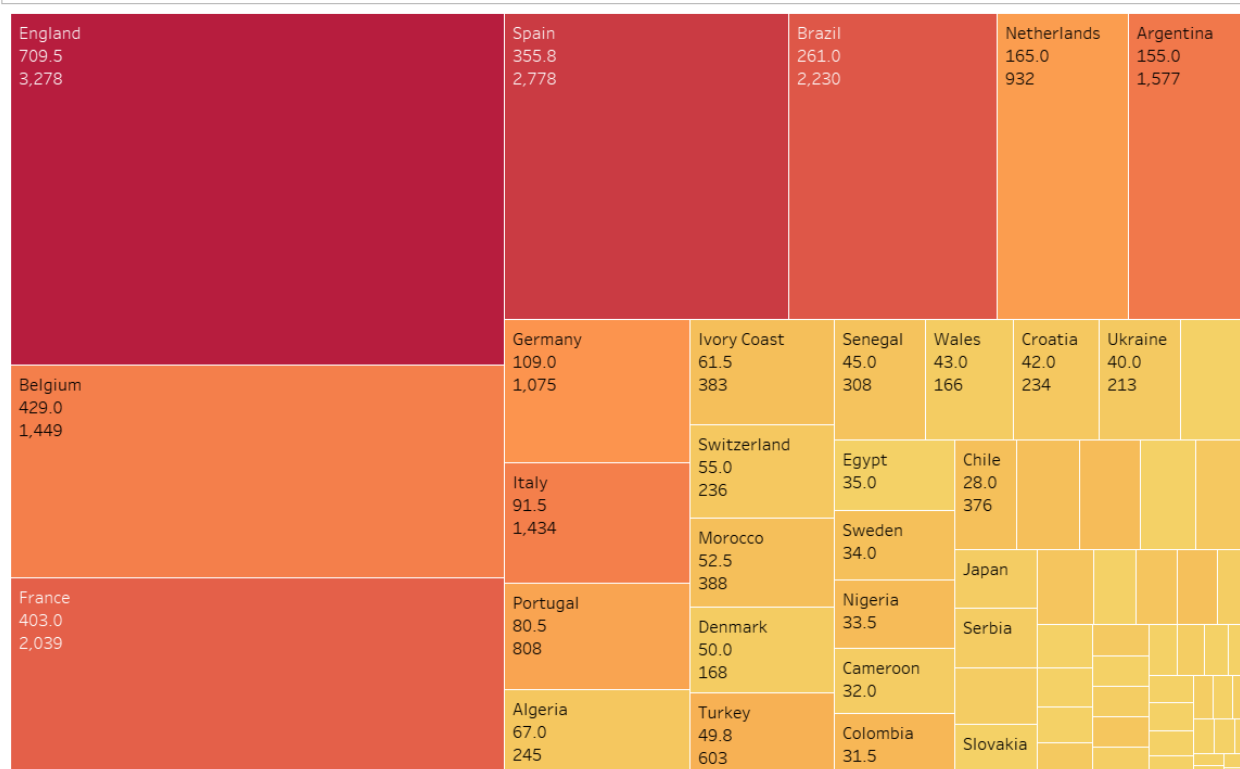


Fig 1

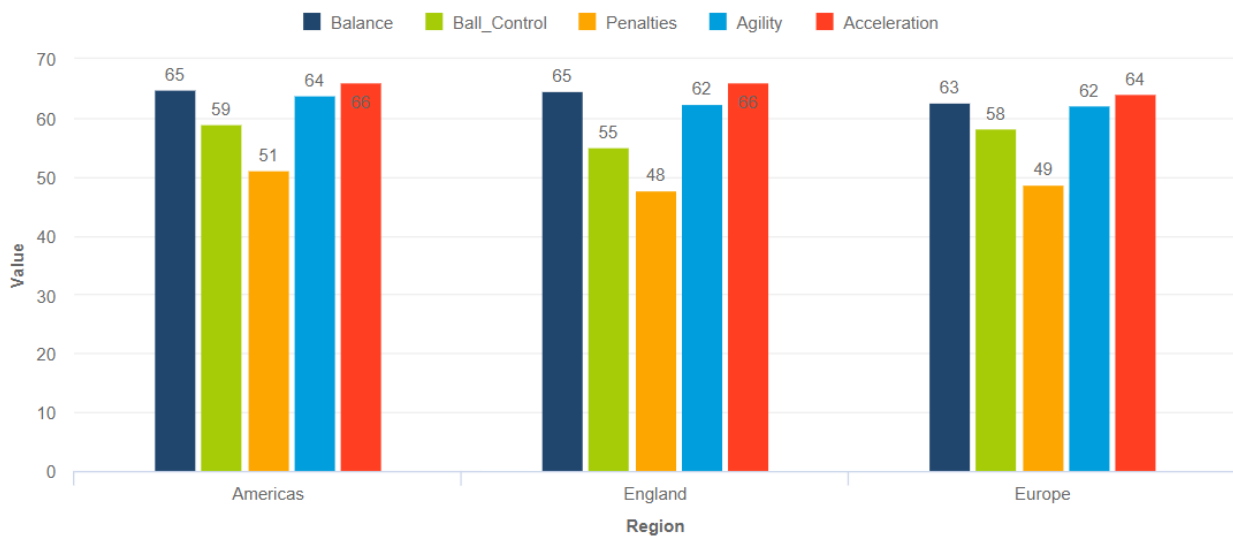


Fig 2

## PERFORMANCE OF PLAYERS ACROSS MAJOR REGIONS IN THE WORLD

Now that analyses of players across each and every football playing nation is done more analyses is required for the major football playing regions in the world. So, three regions are chosen for that where football is most popular sports namely America, England and Europe.

Each of the region selected has some of the major tournaments played in this game. Also, each of these regions have given few of the most skilled players to have played this game of sport.

A through analyses requires analyses starting with analyses on few of the most required skills in this game. So five skills are chosen and comparison of these skills across these three regions have done to find out which region has better players based on these five skills.

Cascade column chart (Fig 2) have been used to compare performance of the players across major football regions in the world. Three regions are considered here America, England and Europe. To compare the performance five key skills have been chosen Balance, Ball Control, Penalties, Agility and Acceleration.

Cascade Column chart plots average value of all these skills region wise. Different colors have been used fro each and every skill chosen for comparison where red represents acceleration while green represents ball control and so on. As per the fig 2 American and England players have better balance than Europe while Europe and England players have better agility then American players.

# Strength At Different Position

Different positions in these games requires different skills and fitness level. So here analyses of different players based on there playing position is done which will give an insight of which players have better skills based on there playing position.

Donut chart have been used see composition based on playing position. Defenders have higher strength compare to other players can be seen from the figure.

## Agression vs Speed

Football is a game of aggression and requires many other skills to succeed in this game one of them being speed.

Here we are comparing Aggression and Speed of players across all over the world. Aggression and speed are not only the traits required by the attackers of the team but are required by all the players playing the game because an edge in these skills can win them a match for there team.

Strength of players at different positions

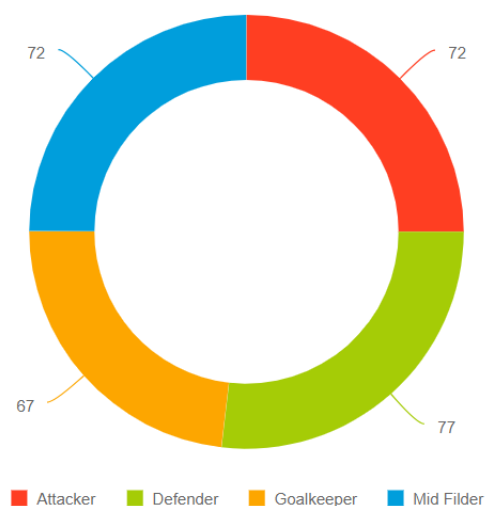


Fig 3

A butterfly chart (Fig 4) have been used here to compare players all across the world based on two key skills namely Aggression and Speed. Red color is used for Aggression which also signifies high power whereas blue color have been selected for speed.

Ecuador have highest Aggression value while Congo have topped in Speed skills. A close competition can be seen among each and every country.

Aggression vs Speed

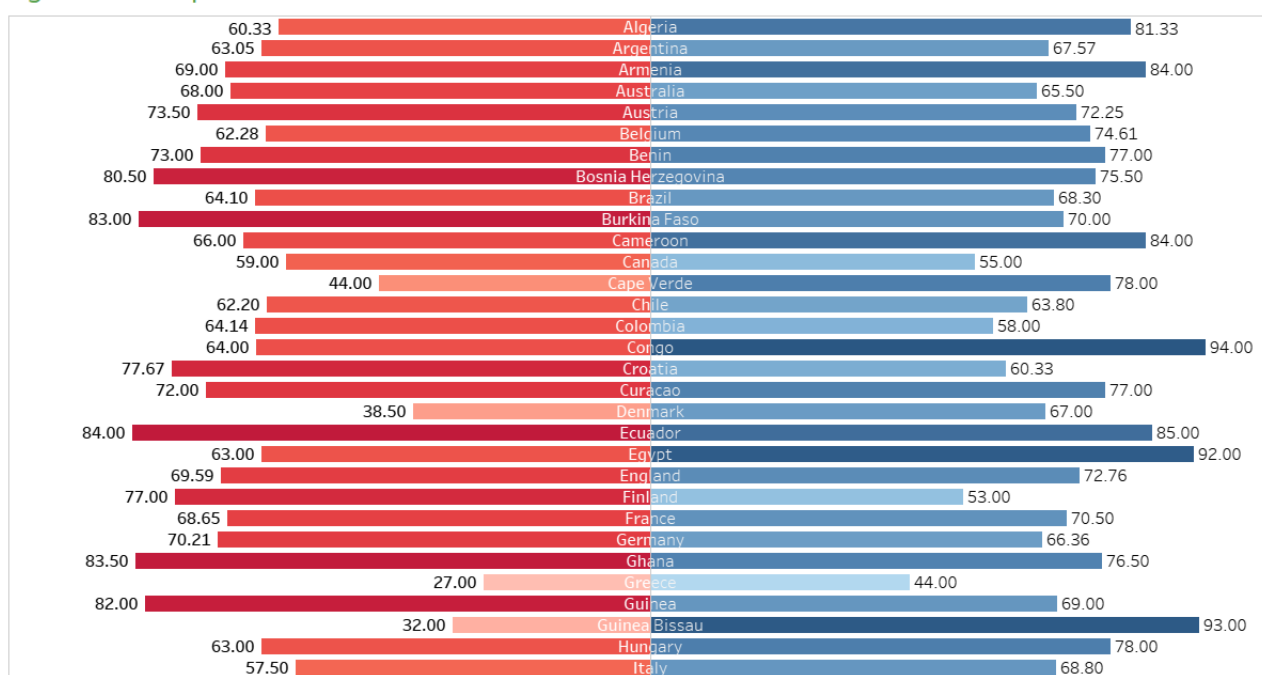


Fig 4

# Left footed vs Right footed player

In this game of sports players have a preferred foot. Analysis of these two types of players lets us know which type of players perform better are better in what kind of skills to that they can be used in position and time where there skills are more favored

Generally there are more right footed players then left footed players so, Average value of skills have been considered to compare these two types of player. First comparison is on how good there are in terms of Finishing and Ball Control.

A pie chart (Fig 5) have been used here to do this comparison. Green color represents ball control and blue color represents finishing. As per the chart left footed players have both better finishing skills an ball control then there counterparts with a average value of 4.6 and 6.1 respectively. But, there is not much difference in values for both types of player which tells that both types of player are almost equally skilled

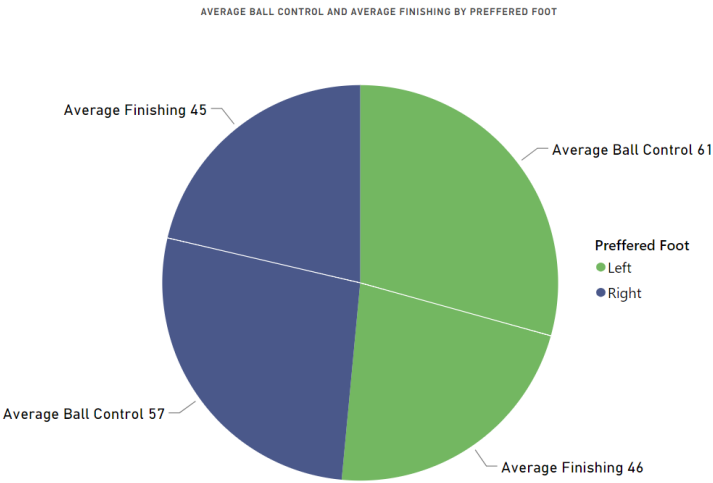


Fig 5

Another comparison of these two types pf players have been done based on the average long pass. Waterfall chart (Fig 6) have been used to this task where green represents increase in long pass value while red represents decrease in the value and blue represents net total.

As per the figure 6 right footed have a little edge over left footed players with a average value of 50 in compare to 49 of left footed players.

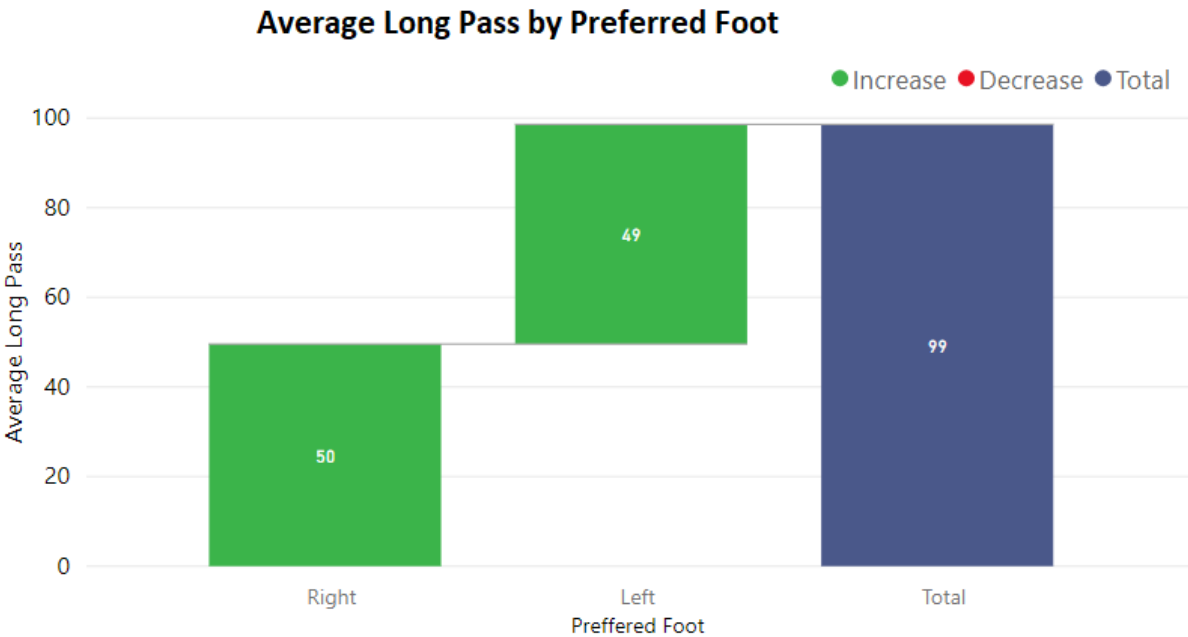


Fig 6

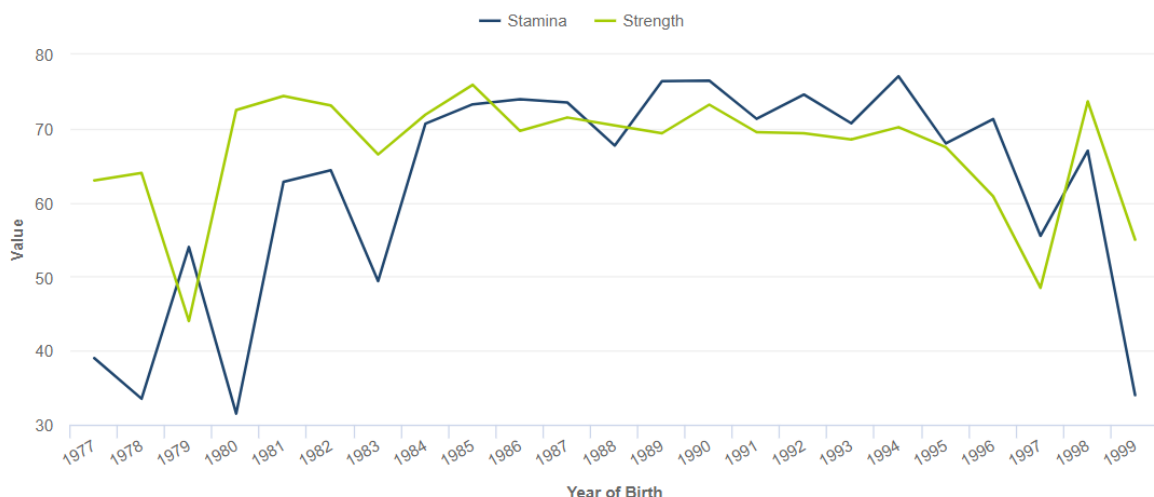


Fig 7

## Performance Based on Birth Year

Football is not a game of recent years this amazing game of sports have been played around many past years spreading love for it since decades.

To compare how players have performed based on the birth years line chart have been used. Blue color have been used to display stamina and green color to

display strength. Strength and stamina have been chosen as they are critical requirements in this game.

Players who have been playing around many years and those who are younger have lower performance which tells us that with time performance improves and again decreases gradually with age.



Average of GK Kicking by Country

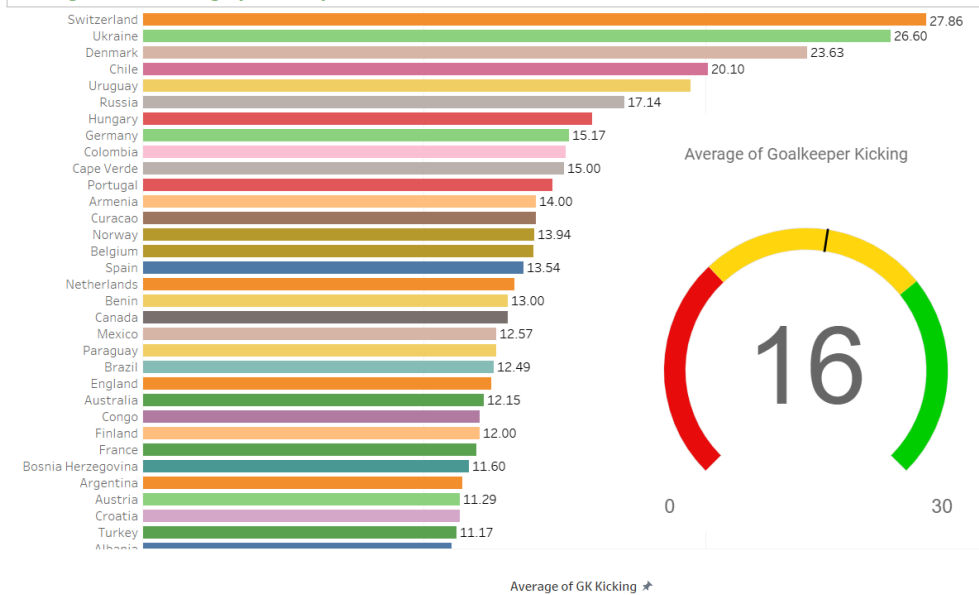


Fig 8

# Analysis of Goalkeepers

Goalkeepers are required different skills in this game compare to others. They are one of the key players in the team someone who has to perform in each and every match to win a match for there team unlike other players who have a liberty to not perform once in a while and still win the match with the backing of other team members in the club.

Comparison of goalkeepers across the globe have been done with the help of Bar chart and Gauge (Fig 8). In the bar chart different colors have been

used for different countries in the world whereas tri color of traffic light have been used in Gauge chart. Average goalkeeper kicking value is 16 with over 27 being the highest score topped by Switzerland.

Line chart (Fig 9) have been used here to compare goalkeeper kicking values across the weights of the goalkeeper. A clear trend can be seen that heavy weight goalkeepers have better kicking value than goalkeepers with lower weights.

## Goalkeeper kicking by weight

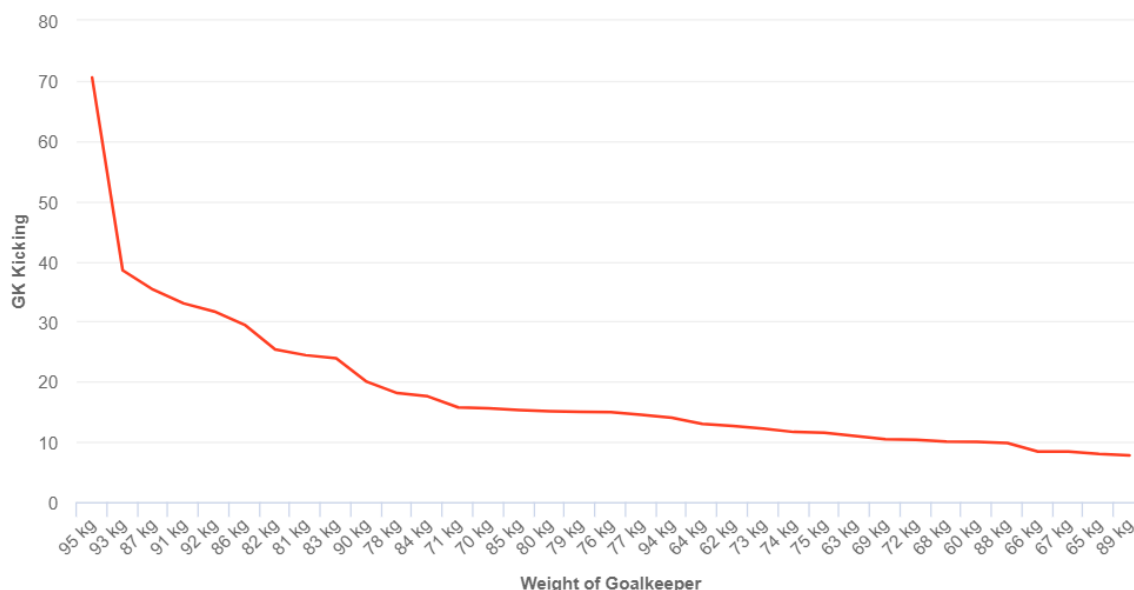


Fig 9

# English Premier league

English Premier League or also known as Premier League is top level of English football league system. It was founded in 1992 and now is the one of the most popular football tournaments in the world and also the most watched sports league in the world.

Twenty teams compete with each other playing two matches with each other team, one being a home match which is played in clubs home ground and other being a away match which is played in opponents home ground.

Manchester United which is one of the oldest clubs in England and also most popular have won this championship most time with a tally of 13 titles.

Each and every year top twenty teams participate in this league after qualifying rounds. Till date 49 teams have participated in the history of EPL. [Wikipedia]

Column histogram (Fig 10) have been used here to analyses and compare age trend in top ten clubs of EPL based on the average market value of players in the club.

As shown in the Fig 10 Spurs have the highest average market value with over 42 million us dollars average market value followed by Manchester United and others. A trend can be seen here that younger players are there in the team with more average market value and older players in clubs with lower average market value.

Top 10 Clubs of EPL by Average Market Value

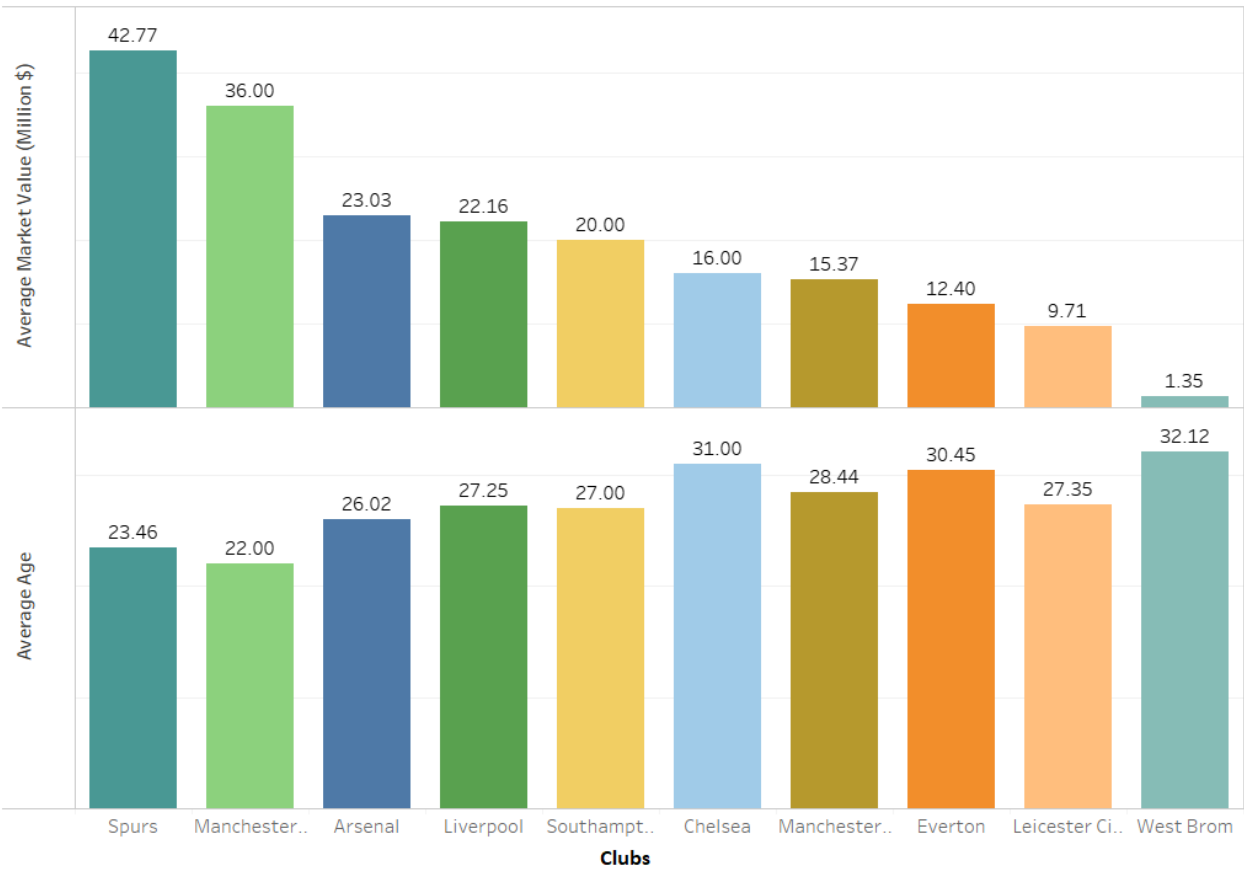


Fig 10



### Top rated clubs

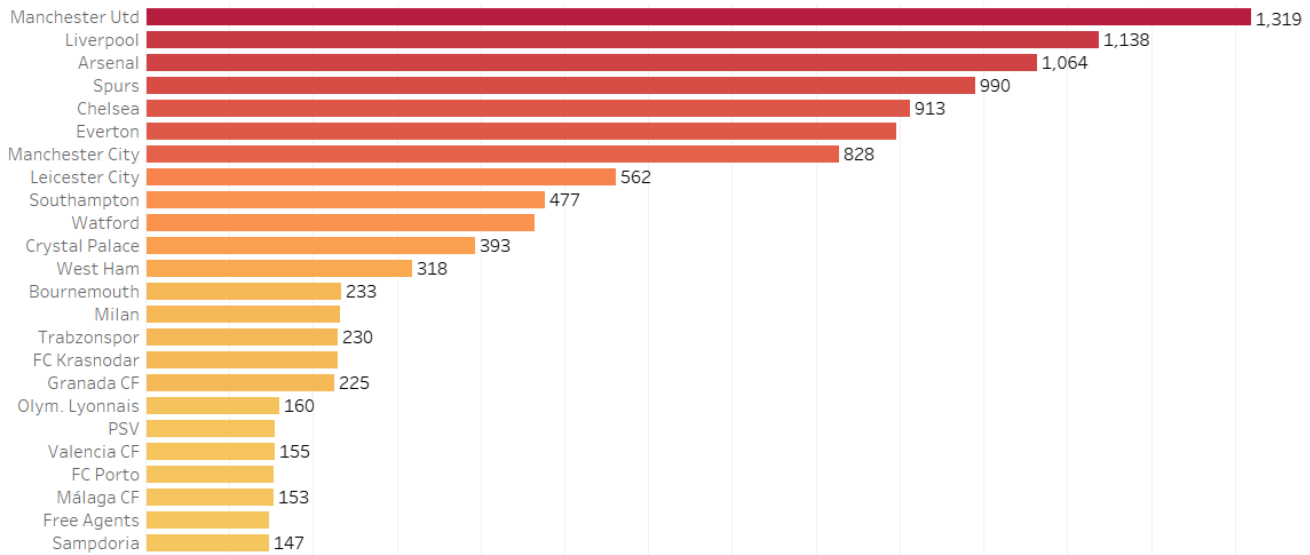


Fig 11

## Best and Worst Clubs in EPL

As the history of this tournament goes there have been many winners in these league. Ranking all these clubs is not simple and many parameters can be considered while ranking them.

Here use of bar chart (Fig 11) have been done to compare and find out top clubs based on the rating. Shades of red and gold have been used to display differences in the rating of the clubs. Darker shades of red represents most rated club whereas lighter shades of gold color represents least rated club.

Another comparison of the clubs have been done to find out the difference in the contrast of the top clubs and bottom clubs.

Bar chart (Fig 12) have been used here for the task of comparison where green color represents top clubs and red color bottom club based on average market value. Manchester united has topped the rating list with value of over 1300 whereas Manchester City is the club with highest average market value.

### Top 3 and Bottom 3 Clubs by Average Market Value

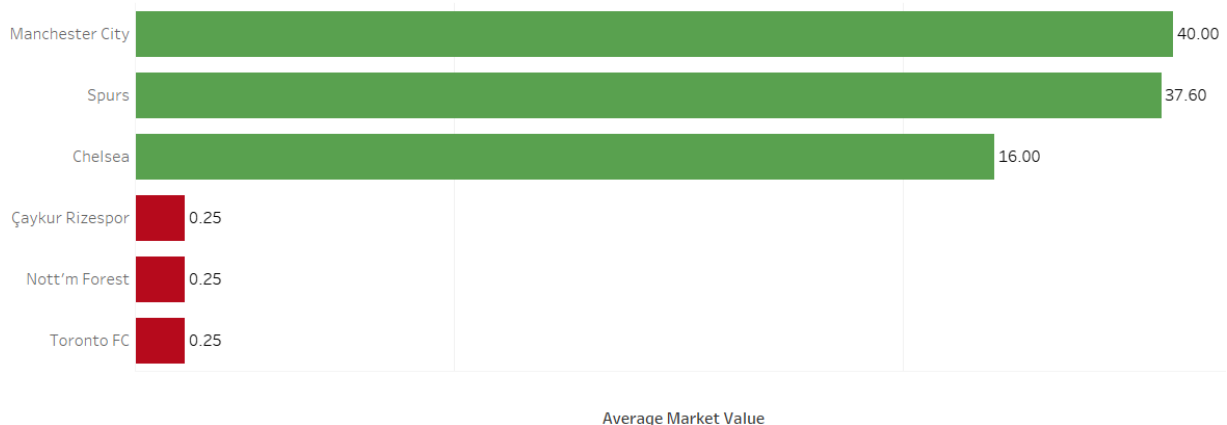


Fig 12

# Messi vs Ronaldo

Irrespective of whether someone is a football fan or not almost each and every person in the world knows or have heard Lionel Messi and Cristiano Ronaldo shows how popular and successful they have been in their life.

Both players are considered one of the greatest players of all time in the history of football. Having an age gap of only three years they have played most of their games in the same era and both have dominated this era. Ronaldo plays football for Portugal and Italian club Juventus whereas Messi plays for Argentina and Spanish club Football club of Barcelona.

Lot of comparison have been done before over these two football players but not enough and it won't be enough ever for any football fan in the world. Both these players have huge fan base not only in their national country but all over the world.

Cascade column chart (Fig 13) have been used here to compare these two players over key critical skills of attacker. As per the chart Messi clearly dominates in the context of Dribbling, Ball control and Long passes but Ronaldo is ahead in terms of Penalties skills. Though in terms of these skills one is ahead of other and vice versa both of these players are considered complete players.

Messi vs Ronaldo

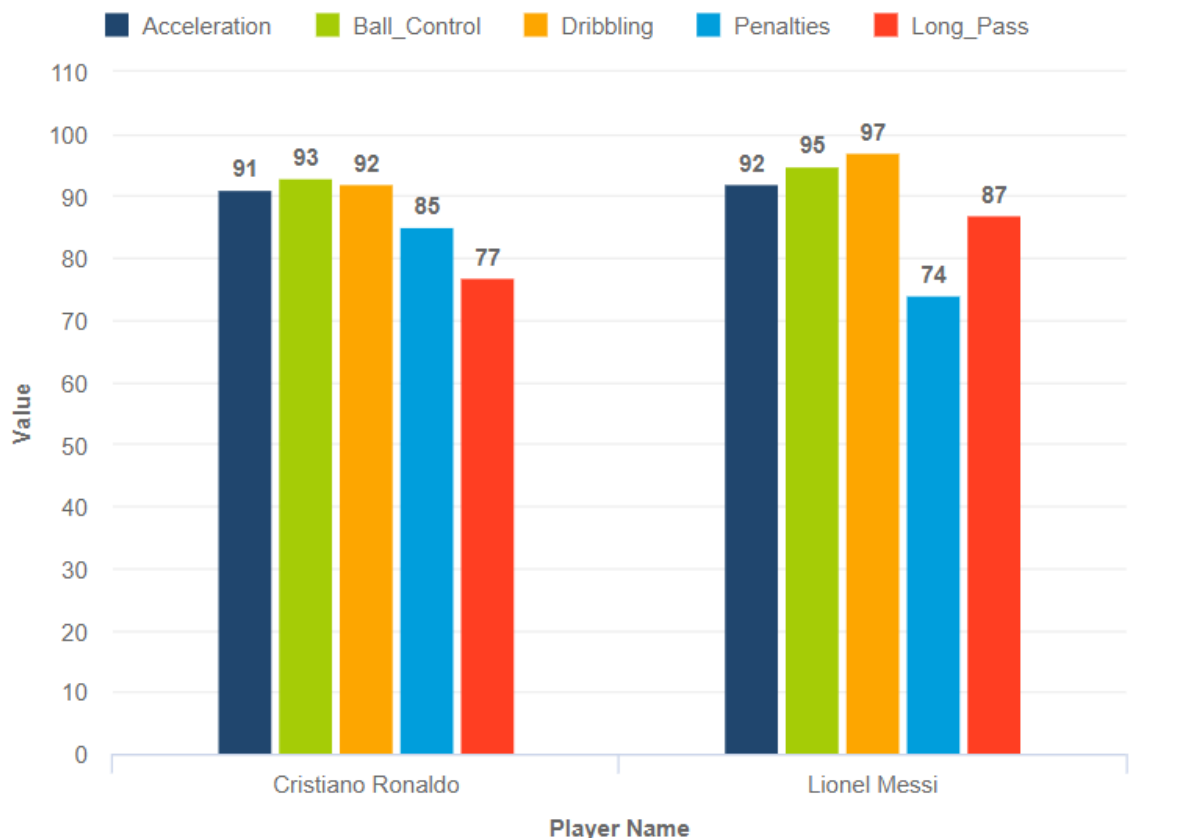


Fig 13

# Most Popular Clubs

Social media is used nowadays in almost each and every domain to advertise and promote. Same goes for football clubs over the world, Almost each and every club in the world be it the smallest and least popular clubs to the most popular and biggest clubs in the world are using facebook page to promote there club and post updates .

Promoting there club makes club earn more fan base which lead to getting more funds as more fan base means more selling of tickets.

Packed bubble chart (Fig 14) have been used here to display the most popular club in the EPL based on Facebook page view . Manchester United being one of the oldest clubs in England have topped in the list followed bu Chelsea and others teams.

## FB Page View

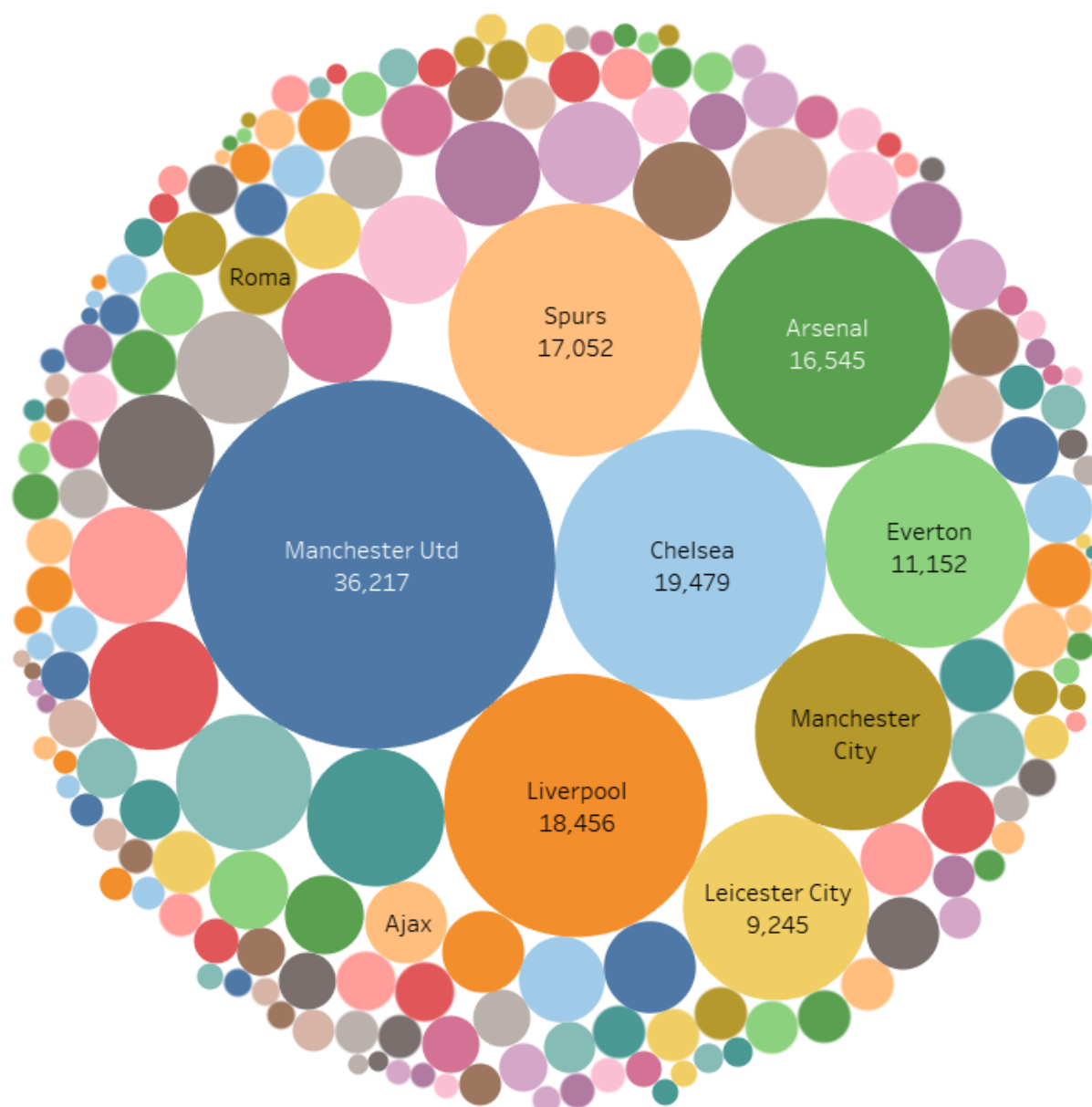


Fig 14

# CONSULSION

This report focused on utilization the power and effectiveness of visualization and popular visualization tools to analyse and provide insight of football players and clubs. Visualization helps one understand whole context and details without having precise knowledge about the domain and aid domain experts in taking decision based on the insight provided by visualization. This report started by analyzing players and clubs across the world then analyzing different aspect of the player then a little comparison on two most popular players in the world Ronaldo and Messi and finally concluded with analyses of clubs in EPL. The insight were showcased visually with the help of different charts which would aid club and country managers to sign better players to win more games and thus improving market values.

## REFERENCES

1. [https://en.wikipedia.org/wiki/Premier\\_League](https://en.wikipedia.org/wiki/Premier_League)
2. Moodle Data Visulation Notes

# Appendix

## 1. Data Sources:

Two data sources have been used in this report both downloaded from Kaggle, first dataset is FIFA 2017 player dataset. Dataset contains over 17000 records for around 50 attributes. Second dataset is related to English Premier League (EPL) which contains stats of around 460 players of 2017-2018 season EPL.

Data source 1:

URL : <https://www.kaggle.com/artimous/complete-fifa-2017-player-dataset-global>

Published Date: 01 April 2017

Data source 2:

URL : <https://www.kaggle.com/mauryashubham/english-premier-league-players-dataset>

Published Date: 03 August 2017

## 2. Types of Chart:

- **Fig 1:**

Treemap have been used as the need was to show composition of market value of players across different countries. Different shades of red and gold have been used to show average highest rated across country. Red signifies more popular and hence this colour has been used.

Tool Used is Tableau because is easy to use and powerful tool.

- **Fig 2:**

Cascade column chart have been used as the need was to show comparison of across different regions in the world. Colour have been selected considering the category type i.e. red for acceleration and green for ball control.

Tool Used is Data pine because it provides vibrant visualisation and many attractive charts.

- **Fig 3:**

Donut have been used because need was to show composition and it was static categories. Red signifies aggressive trait and thus been used to depict attacker.

Tool Used is Data pine because it provided pie chart in donut shape.

- **Fig 4:**

Butterfly chart have been used because comparison display was needed to be done. Shades of red signifies aggressive trait and thus been used to depict aggression whereas, Shades of blue for speed

Tool Used is Tableau because is easy to use and powerful tool.

- **Fig 5:**

Donut have been used because need was to show composition and it was static categories. Green was used to show ball control because green colour is analogy to composed which ball control is all about.

Tool Used is Power BI because it has some great features.

- **Fig 6:**

Waterfall chart have been used because need was to display composition and it was static categories. Green was used to show ball control because green colour is analogy to composed which ball control is all about.

Tool Used is Power BI because it has some great features and It is easier to make waterfall chart in power BI.

- **Fig 7:**

Line chart have been used because need was to display comparison over time for two categories. Colour was chosen considering type of category.

Tool Used is Data pine because it provides vibrant visualisation and many attractive charts.

- **Fig 8:**

Bar chart have been used because need was to display comparison among items. Gauge is used to display the average. Tri colour of traffic light is used here to display maximum average and minimum. Different Colours for different countries have been used.

Tool Used is Data pine because its easy to make gauge in this tool along with that Tableau have been used to plot bar chart

- **Fig 9:**

Line chart have been used because need was to display comparison over the wide range of weights. Red colour has been used to display kicking score as its symbols power.

Tool Used is Tableau because is easy to use and powerful tool.

- **Fig 10:**

Column histogram chart have been used because need was to display distribution among top clubs in the EPL.

Tool Used is Tableau because is easy to use and powerful tool.

- **Fig 11:**

Bar chart have been used because need was to display comparison among items. Shades of red colour to display ratings which symbols more trending.

Tool Used is Tableau because is easy to use and powerful tool.

- **Fig 12:**  
Bar chart have been used because need was to display comparison among items.  
Red colour for worst clubs and Green colour for top clubs

Tool Used is Tableau because is easy to use and powerful tool.

- **Fig 13:**  
Cascade column chart have been used as the need was to show comparison of two most popular players. Colour have been selected considering the category type i.e. green for ball control and red for long pass.

Tool Used is Data pine because it provides vibrant visualisation and many attractive charts.

- **Fig 14:**  
Packaged bubble chart has been used as the need was to show most popular club. Different vibrant colours have been used for different clubs.

Tool Used is Tableau because is easy to use and powerful tool.