Overall Description of the Dataset

Football Transfers 2007-2017

Basic Information

- Link to this dataset on Kaggle:

  https://www.kaggle.com/vardan95ghazaryan/transfers-in-1617-season

- This dataset contains transfer information of male soccer players from 2007 to 2017.

- The dimension of the dataset is 6236 rows to 10 columns.

- Each data instance has information about the player and the transfer.

- About the player, the row consists of the player's name (PLAYER), his position on the field (POSITION), and his nationality (COUNTRY).

- About the transfer, each row contains the team the player leaves (FROM), the team he joins (TO), the type of transfer (DESCRIPTION), the transfer window he leaves (WINDOW), the transfer's price (PRICE), the league he joins (LEAGUE), and the season he starts playing for the new team (SEASON).

Statistical Description

- About the Player
    - PLAYER:
        - There are 4,166 unique players in the dataset.

- ■ The most time a player appears in the dataset is 7 times, with 6 players having this amount of transfers.

- ■ 2,873 players appear only once in the dataset.

  - ○ POSITION:

    - ■ Out of 6,236 transfers, midfielder players are transferred the most, with 1,886 times (30.24%).

    - ■ Defenders, attackers, and goalkeepers' transfers occur 1,480 times (23.73%). 1,369 times (21.95%) and 374 times (5.98%), respectively.

  - ○ COUNTRY:

    - ■ There are 144 unique countries in the dataset

    - ■ Italy is the most popular nationality, with 529 out of 6,236 transfers (8.48%) involving Italian players.

- ● About the Transfer

  - ○ WINDOW:

    - ■ Out of 6,236 transfers, 4,854 (77.84%) happen in the pre-season, and 1,382 (22.16%) occur in the mid-season.

  - ○ FROM:

    - ■ There are 1,013 unique teams that the players left in the dataset

    - ■ Chelsea has the most players leaving their team with 124 out of 6,236 transfers (1.98%).

  - ○ TO:

    - ■ There are 323 unique teams that the players join in this dataset

- ■ Roma has the most players joining their team with 116 out of 6,236 transfers (1.86%)
- ○ DESCRIPTION:
  - ■ Most of the transfers are sold (a team sells their player to the other team) with 1,897 out of 6,236 transfers (30.42%).
  - ■ The second-most common type of transfer is loans (a team lends their player to the other team for a specific season) with 1,604 out of 6,236 transfers (25.72%).
- ○ PRICE:
  - ■ The maximum cost of all transfers is 105,000,000 Euros
  - ■ The minimum price of all transfers is 0 Euros
  - ■ The mean cost of all transfers is 2,756,248 Euros
  - ■ The median price of all transfers is 0 Euros
  - ■ The mode price of all transfers is 0 Euros
  - ■ The standard deviation is 7,312,050 Euros
- ○ LEAGUE:
  - ■ There are six unique leagues that players join in this dataset
  - ■ Serie A has the most transfers joining with 1,775 out of 6,236 transfers (28.46%)
- ○ SEASON:
  - ■ There are ten seasons including in the dataset
  - ■ 2015 - 2016 is the season with the most transfers, with 866 out of 6,236

Graph Information

- Basic Knowledge about Soccer Leagues

  - EPL, or England Premier League, is England's highest soccer division.

  - La Liga is Spain's highest soccer division.

  - Serie A is Italy's highest soccer division.

  - Bundesliga is Germany's highest soccer division.

  - MLS, or Major League Soccer, is the U.S's highest soccer division.

  - ROE, or the Rest of Europe, represents all other teams in Europe that are not part of England, Germany, Spain, and Italy.

- Graph 1: Total Amount of Money spend on Transfer (in Euros)

  - This graph consists of two bar charts; the upper graph represents the total amount of money spent on transfers by seasons, and the lower graph depicts the same information by leagues and transfers windows. Both graphs share the same unit of Euros.

  - In the upper graph, the color represents the leagues that are included in spending money on the transfers market. The bars represent the seasons when the transfer takes place.

  - In the lower graph, the color represents the time windows that the transfers happened. The bars represent the leagues that the players joined.

  - From this graph, it is clear to see that the amount spent on the transfer market increases after each year. English Premier League (EPL) teams contributed almost

half of the total amounts spent on transfers, with over five billion Euros spent in ten years.

- Graph 2: Number of Transfers happened from 2007 to 2017
  - This graph consists of two bar charts; the upper graph represents the number of transfers by seasons, and the lower graph depicts the same information by leagues and transfer windows.
  - In the upper graph, the color represents the types of transfers. The bars represent the seasons when the transfer takes place.
  - In the lower graph, the color represents the time windows that the transfers happened. The bars represent the leagues that the players joined.
  - From this graph, it is clear to see that the amount spent on the transfer market is on an increasing trend. However, the trend is not clear. In some years, the number of transfers is less than their previous season. Italy's highest division (Serie A) teams contributed the most number of transfers out of the five leagues.
  - Another interesting finding is that EPL teams had players joining them in the pre-season.
- Graph 3: Top 10 Teams transferring out and acquiring the Most Players from 2007 to 2017
  - This graph consists of two bar charts; the upper graph represents the 10 teams transferring the most players out of their squads, and the lower graph depicts the 10 teams acquiring the most players from the market.
  - In both graphs, the color represents the types of transfers. The bars represent the teams.

- ○ From this graph, we can see that all top 10 teams transferring out players on loan. It is fascinating information. These teams may loan out their players to reduce their salary budget and allow their youngsters to have more game times. About the acquiring part, most of the transfers are sold. The exception is Udinese, as all of their transfers are undisclosed.
- Graph 4: Top 10 Teams spending the most money on Transfers from 2007 to 2017 (in Euros)
  - ○ This graph consists of one bar chart. This bar chart represents the 10 teams that spent the most money on the transfer markets from 2007 to 2017. The unit of this graph used in this graph is Euros.
  - ○ The color in the graph represents the positions of the transferred players.
  - ○ From this graph, we can conclude that most teams do not spend money on buying goalkeepers. Instead, they used most of their money on midfielders and attackers.
- Graph 5: Top 10 Players with Highest Total Transfer Fee from 2007 to 2017 (in Euros)
  - ○ This graph consists of one bar chart. This bar chart represents the 10 players that had the highest total transfer fees from 2007 to 2017. The unit of this graph used in this graph is Euros.
  - ○ The color in the graph represents the positions of the transferred players. The bar represents the player's name.
  - ○ From this graph, we see that five out of the top ten players are midfielders. In the meanwhile, four of the top ten players are attackers. Only one player on this list is

a defender. It shows that teams prioritized their budgets on midfielders and attackers.

- Graph 6: All Transfers made in Seasons from 2007 to 2017
    - This graph consists of a set of box plots. Each box plot represents all transfer happen in one season. Therefore, there are ten box plots in this set.
    - Each data point represents a player transfer. The y-axis represents the transfer fee of the player, and the x-axis indicates the season when the transfer happens.
    - The color represents the league the player joined in that transfer.
    - From this graph, we see that most of the transfers are priced below 30 million Euros. However, there are lots of outliers. It is due to rich teams purchasing the best players. Therefore, their prices are way higher than the average.