

Chapter 2

Introduction to Fifa Ultimate Team

This chapter provides an introduction to the most played online mode of EA Sports yearly released computer game FIFA: FIFA Ultimate Team (commonly called FUT). We will have a closer look at the current game FIFA20 in the following. The underlying game concept remains throughout the last years released games and will be explained in this chapter to provide a basic understanding of the game. This years FIFA20 is played by more than 10 million people worldwide, which shows the relevance and impact of the game and makes it even more interesting to research towards different fields. [3]

The following section does not claim to be comprehensive in terms of covering all the information about FIFA Ultimate Team. We will only observe and explain facts about the game mode that are relevant for the striven price prediction.

2.1 Structure of the game mode

FIFA is a football simulation video game, that basically offers to play with a team consisting of real football players against other gamers. We will from now on call the football players in the game *players* and other persons you can play against *gamers* to avoid misunderstandings.

2009 the FIFA series received the online mode FIFA Ultimate Team. The main idea behind this game mode is to build up your own dream team with the players you would like to play and compete with other gamers teams. The players are represented by cards that you receive as depicted in Figure 2.1.

There are different ways to obtain those cards. The two main possibilities are either receiving them from packs, which include a random selection of those cards, which can be bought with real money or buying them on the virtual transfer market of the game with *coins*, which is the name of the in game currency of FUT. Coins can be gained in different ways. You get coins for every match you play, as rewards for participating in different competitions and selling cards on the transfer market.



Figure 2.1: This figure shows some cards that represent the players in FUT

Besides the players cards there are also other types of cards as for example consumables, that can be applied to the players, like position changes. [4]

2.1.1 Chemistry

When it comes to building your squad there are a few things that have to be taken into account. One of them is the *chemistry*.

The main idea behind this catchword is that you need to build your squad in a way where the players in some kind are related to each other. Being related means in this context, that two players are from the same nation, are playing in the same league or even play at the same club.

If we have a look at figure 2.2 one can see that a team is set up in a certain formation, which you can choose freely, and that there are connections between the players. Every player has a maximum chemistry value of 10 and a minimum value of 2. The higher the chemistry, the better is the player when you play him in the game.

Therefor we can say, it should be aimed to build a team where every player has a chemistry value of 10. To obtain a chemistry value of 10, a player needs to have the same position written on its card as the position you put him in the certain formation. This means for example, that on should not put a goalkeeper card into a striker position.

The second important point is about the other players that are next to/ connected to the player. The relation to another player is rated from 0 to 3 points. A player

needs as many points/links as connections to other players.

As an example we have a look at the player on the top left position (left ST (striker)) in Figure 2.2. This player needs 3 links in total due to his connection to the left CM (central midfielder), the CAM (central attacking midfielder) and the right ST. The player is obviously supplied with enough links, as he is already connected by a link with the value of 2 to both other players with the english nation from the same league (premier league).

[5]



Figure 2.2: This figure shows a FUT20 squad of a certain formation

2.1.2 Attributes

This section will cover all information about the players attributes like pace, shooting, passing and so forth. These attributes describe what makes a player unique. We distinguish between in game stats, that define the performance in the game and info attributes like nation, height, type of the card, etc.

In game stats:

The in game stats are all values between 0 and 99, the higher the better, and are clustered into 6 categories: pace, shooting, passing, dribbling, defending and physicality.

You can see the whole list of in game stats in figure ??.

We considered the in game stats to have a huge impact on the price of a player

as they obviously correlate directly with the performance of the player in a match, what is one of the biggest points about the game, hold a strong performing team to beat other gamers.

An interesting question about those attributes is, if the importance and relevance is as homogeneous as their value distribution or if there are more important and less important attributes among them. We will come back to this later at the point where we are analysing the weighting of our trained model.

Info attributes:

Those attributes contain as already mentioned different types of information about a player with a wide range of values. From plain text over a selection about leagues, nations and clubs to 1 to 5 rated attributes we find a lot of different values. (Maybe add information or insert list of all attribute infos) It is possible that some of them are not even affecting the price of player, because nobody takes the information into account and others might have a bigger impact than expected. We will also have a look on this in section 5.4.

Those two attribute groups contain all the data that we use to define our features to train and develop our models.

2.2 Different Card Types

As already mentioned FUT provides a digital representation of the players, that are playing in the football leagues in the "real world", through obtainable cards. There are different card types.

At the start of the game in September 2019 there were only three base card types: bronze, silver, gold. Every of those three card types holds rare and common cards, where the common are more likely to be packed from the card packs one can buy or receive through mentioned game modes. The fourth kind of cards in the beginning of FIFA20 are icon cards, that represent former football stars like Pele, Ronaldinho and Michael Ballack.

The special property of those icon cards is, that they provide a chemistry link to every card, no matter which league or nation. If another card additionally matches the nation of the icon card, it obtains two links from the icon card. This means, an icon is not dependent on the other cards regarding its chemistry value and furthermore is helpful to link other cards in the team. Icon cards have therefore a very helpful additional use next to their in game performance value, which increases their demand.

Throughout the year, EA provides several new card types, which contain new versions of already existing players that are higher rated and better. They are released during themed events, that take place for one to two weeks most at the times. One of the most expected events is for example the "Team of the year" (TOTY), where

the best eleven players of the last season are getting a major boosted version of themselves in the game.

Cards that are released during a event are only available to be packed during the time of the event, whereas the "normal" four card types are brought into the game during the whole season. Those new cards have a big impact on the market because they are requested very highly and are only available for a short time. This often leads gamers to sell their older version of a card or other cards of their club to be capable of buying the new cards, which impacts the market heavily.

2.3 The transfer market

The transfer market is the place in FUT where all the players can be sold and bought. The price of the players results of supply and demand. A very important fact in this suspect is that every player has a price range, determined by the publisher EA Sports, with a minimum and a maximum value. This price range is not always consistent and is sometimes adjusted by EA Sports which makes the the minimum and maximum value not a reliable and constant attribute for our prediction. [6]

It should be mentioned, that a player can be bought and sold unlimited times, but for every transaction of an player, EA keeps 5% of the in game currency as taxes. This means that if one gamer sells a player successfully for 100.000 coins to another one, he receives only 95.000 coins. This concept mainly reduces inflation but also makes it more different for people who try to trade and draw profit by selling players at a time for cheap price and sell them on another for more coins. [7]

2.4 Summary

FIFA Ultimate Team (FUT) is the most played game mode in the yearly released game FIFA by EA Sports. The main point is about competing with other gamers by playing virtual football with a self constructed team of recreated real football players in different competitions of the game.

The players a gamer owns are represented by cards, that are stored in his virtual club. There are multiple different types of cards and also different versions of a single player, represented by different cards.

There are some restrictions for the teambuilding, to make it more challenging and demand more creativity when it comes to develop a team.

Players can be traded between the gamers on the games internal transfermarket by buying them with the in game currency called coins.

After this short introduction to the world of FUT we proceed with our theoretical basement of our prediction approach, that we later apply to the case of FUT.