Overview: The Indian Premier League (IPL) is a T20 cricket league held in India and is the most attended cricket league worldwide. The league ranks sixth amongst all sports leagues in the world and according to global valuation and corporate finance advisor Duff & Phelps, the value of brand IPL stands at around $4.16 billion in 2016. The IPL currently comprises of 8 franchise owned teams that more or less represent the major cities in India and has around 200 players from countries such as: India, South Africa, Australia, West Indies, New Zealand, England, Netherlands, Sri Lanka and Bangladesh. All the players are bought by the franchises via an auction. Through this case study we will explore the strategies and the methods used by the franchises to organize their teams, the selection criteria and evaluation techniques used by teams to select their resources and how the dynamic nature of the auction influences the organizing principles used by the franchises. We will also explore how the timing of a resource entering the organizing system effects its monetary value and changes its importance.

What is being organized? In the organizing system, which is the IPL, the players are the resources (active/operant resources) that are being organized. As simple and straightforward as it may sound teams spend millions of dollars on scouts, software and data analysts to perfect the art of organizing their resources. This challenge is due to the fact that the team owners, analysts and coaches are trying to extrinsically organize (define a price on) an intrinsically dynamic resource property (a player’s attributes). Let us unpack this idea to understand it further. When we are dealing with physical resources they each have resource properties. In this case the primary resource properties are the players (player name, age, nationality, batting style, bowling style) and the secondary resource properties are the player attributes (statistics). The player attributes are intrinsically dynamic as skill and experience are properties that change over time. The resources are categorized by the primary resource descriptions and the monetary compensation they receive are due to their secondary resource descriptions. This becomes extremely challenging because how do you assign the right price to a resource whose core competencies keep fluctuating? How can you be certain that the resource once purchased will be able to fit into the culture of your organizing system? What tradeoffs need to be made to find the optimal mix of resources? How can you assess that the lifetime of a resource has been reached and it is time to
curate your organizing system?

These key questions will be addressed in the subsequent sections and in the artifacts.

**Primary Resource Description:**

Virat Kohli, India's Test captain, has rapidly come up through the system to emerge as one of the world's leading batsmen. He was the captain of the Indian team that won the 2008 ICC U-19 World Cup. Virat is the quintessential new-age cricketer who plays his game aggressively and is unafraid to express his emotions on the field. The flamboyant cricketer is also known to enjoy the lifestyle that comes with being a star. All this, while being a consistent performer for his side. He can perform calmly and consistently under pressure, and has delivered many match-winning performances over the last few years. Virat is also a good fielder and can bowl an occasional spell of medium pace. By making him in charge of the team for a few games in IPL 2012, the Royal Challengers Bangalore groomed him as their next leader, which he eventually became in the 2013 season. Retained by the franchise ahead of the IPL Player Auction 2014, Virat continues to lead the side.


**Secondary Resource Description**
Why is it being organized? In India there is a belief that cricket is more than just a game, it’s a
The overarching goal and the primary reason that the resources are being organized are so that teams can build an organizing system that is far superior to their competitors and to give themselves the best chance to win the coveted IPL trophy (goal oriented interactions).

Additionally, the interactions supported in this organizing system have benefits that are reaped by the cricket board, the resources, the teams and the millions of viewers that tune in from all around the world. In 2016, the broadcasters of the tournament Sony Pictures Networks India made approximately 169 million dollars, the cricket board in India (The BCCI) made 38 million dollars, the teams made around 40 million dollars (from advertisements, merchandising and ticket sales), the prize money was set at 7 million dollars for the winners and the resources were payed in the range of thousands to millions of dollars for their attributes. The organizing system also benefits that Indian economy and it is believed that the IPL added 11.5 Billion INR to the Indian GDP. In addition to all the monetary benefits the viewers who fill up the stadiums and who tune in on their televisions get to witness the perfect marriage of sports and entertainment. (Some of the teams are owned by Bollywood superstars and most teams have actors/models as their brand ambassadors.)

**How much is being organized?** The scope of the organizing system and the scale vary every 2-3 years. Unlike the NBA and NFL drafts where a bulk of the team is fixed and only college players and free agents enter the draft, in the IPL, once every 3 years every player (apart from 4 resources, who you can retain) enters the auction. This means that once every 3 years approximately 351 resources are auctioned and every other year around 80 resources are auctioned. Out of the 351 resources, roughly 100 are bought by teams. Teams are also given a transfer window where they can trade resources. With this system in place, it adds to the complexity of the organizing system as every 3 years you are not only trying to figure out which individual resources to retain but also how to build an entire resource collection that will revolve around these individual resources.

**When is it being organized?** The most straightforward answer to this question is that the resources are organized “on the way in”, during the auction, which happens annually. Teams strategize and create elaborate plans to organize their resources, however, as Mike Tyson rightly said, “Everyone has a plan until they are punched in the mouth”, it can be seen that it is
extremely difficult to execute a plan due to the dynamic nature of the auction. Unlike regular auctions where you know which resource is going to come out at what time, in the IPL auction, players in a particular category come out randomly. A “dynamic model” of organization is followed because after every resource enters and leaves the organizing system a new plan needs to be made. This is particularly difficult to deal with because if a team wants to buy resource A and wants to have resource B as backup, what happens if resource B comes up before resource A in the auction. In these circumstances it has been observed that there is a bidding frenzy and few resources have been auctioned for almost 30 times their base price.

**How or by Whom is it being organized?** This question is the most important question of this case study and deserves some time to be spent on it. Resources are classified under two broad categories, Indians and Overseas, under these two categories, resources are then further classified under international and uncapped players (resources who haven’t played for their country) and under these categories players are again classified under the categories- batsmen, bowlers, all-rounders and wicket keepers. (The reason for this method of categorization and classification is addressed in the artifacts). It must be noted that all these categories are institutional categories and a clear taxonomy can be seen as shown in the figure below. Based on the category the resource is classified under a price tag is given to the resource. In 2016, each team was allocated 660 Million INR to buy their resources. An organizing system once complete can consist of a maximum of 9 overseas players and 27 total players. Resources under each category are then made available one at a time and the process is repeated until all categories are exhausted. Even though organization takes place during the auction, if we take a closer look we can see that teams start their preliminary organization many months in advance. Scouts are sent out to observe domestic and international matches in order to perform discovery and find the next resource that can propel the team to a win. Teams engage data scientists to conduct appraisals of the resources in order to evaluate their shelf lives and the cost of appreciation/ depreciation. Finally coaches and team owners then discuss the capability and compatibility of the players aided by the use of predictive statistics. During the day of the auction, the coaches, the data scientist and the team owners carry out the task of organizing of resources.
**Where is it being organized?** The organization takes place at a designated physical location every year. In the past few years the organizing of resources has been taking place in the city of Bangalore in India.

**Other considerations.** It is highly likely that as the years go by and the tournament evolves the rules and regulations of the auction might change. In order to build strong fan bases the tournament owners might change the format of the auction. More emphasis might be laid on building a collection of resources and then looking for individual resources that might benefit the collection rather than looking to build a collection of resources once every 3 years. The format of the auction also might be tweaked in a way to resemble the NFL and NBA auction. As of now there are 8 teams that take part in the tournament and it makes sense to give each team a chance to buy any resource of their choice, however, as the tournament starts to scale and more teams are added, teams would like to know which resource is going to be available at what time and teams would also prefer to have picks in order of their ranking from the previous year.

Whatever maybe be the case, whether the tournament scales or whether the rules of the tournament change, the principles of organization that need to be applied will always remain a
constant and the design questions that need to be thought of while building an organizing system will always need to be asked.

**References:**

- [https://en.m.wikipedia.org/wiki/Indian_Premier_League](https://en.m.wikipedia.org/wiki/Indian_Premier_League)
Artifact – Interview with an analyst

In order to gain further insight in the selection process I interviewed the lead data analyst for one of the IPL teams. This team has won the IPL twice. The answers by the analyst are marked in red. Through the response we can observe what are the KPI’s analysts look at when selecting a resource, how do they look at organizing a team with the right blend of experience and youth (what tradeoffs are made), how do they select uncapped players (relatively unknown players with limited data) and how do they maintain their teams.

Questions:-

• A typical data analysis model requires millions of data points to make a prediction, with only limited data available for T20 cricket how have you been able to overcome that challenge and what are some of the key attributes of the resources (the players) that are being taken into consideration?
  - First of all, with respect to individual players’ data or stats on their performance beyond a certain time frame is irrelevant in terms of considering the resource for a team. How the player has done three years ago doesn’t not hold him good if he is currently out of form or has had a bad season leading up to the current competition. In terms of venue and other analysis data spanning over 4-5 seasons is good enough to understand the nature of the wicket and how the venue behaves.
  - Some of the key attributes would be Strike Rate, Flexibility in terms of batting order wise, playing under pressure for a batsman and for a bowler his economy rate and his success percentage in various stages of a T20 game of cricket.

• How does the tool SAP Auction Analytics help in assessing a player’s price during an auction? What are some of the factors that the tool takes into consideration?
  - It was more of a commercial value deal with SAP than a tool to help us at the auction.

• How do you assess what the optimum blend of the team should be? (youth vs experience)
  - Youth vs experience is a debate which will be never ending. Experience can never be discounted in any form of the game but at the same time you need some young blood who are fearless and take the fight to the opposition while the experienced players can
hold ship and others play around them. Experience matters a lot especially when you are in a crunch situation and need a level headed person to take control on things which moves along at a rapid pace.

- The timing of a player’s entry in the IPL auction is key, how do you adjust your strategy based on timing. For example, if you want to buy player A and player B is your backup. However, during the auction if player B comes before player A what strategy do you use then?
  - Going into the auction, Player A and Player B will be selected based on similar skill sets. So one must be prepared to get either. If the planning is stagnant then you will end up paying a higher price and eventually lose out on picking another player who might be of more importance to the team.

- With hardly any data on uncapped players, how do you decide what the right price of the player should be? How can an anomaly like KC Cariappa, where he went for 24 times his base price, be best explained?
  - The auction is a very difficult process to understand from a third man’s point of view. The player’s value is determined by a few factors not to mention if he is a current blue eyed boy of cricket or what skill sets does he have which will play a big role in the composition of your team. Also, when I picked Cariappa it wasn’t backed on data but I saw him first hand at the KPL and thought he has the skill sets to become a good T20 bowler someone who can even go on to represent the country.

- Player skill and experience is an inherent dynamic property, which means that over time both those attributes change. An organizing system (The team) needs to be maintained. Does the data tool also let you know which players you need to let go off? What factors are being considered in this case?
  - We don’t depend on data as much as how it is made to look. Releasing a player again depends on what changes the team is looking to make going into the future and if there are enough resources in the market who can be possible replacements in terms of skills and also value for money.
Artifact – Selection Criteria Factors

Let us observe some further data to understand some of the phenomenon that occur in resource selection in the IPL.

An organizing system once complete can consist of a maximum of 9 overseas players and 27 total players. This maybe the overall size of the squad but during a match only 11 out those 27 players can play the game. In the IPL, since it is an Indian tournament after all, the team can have a maximum of only 4 foreign players in the playing 11. Which means that 7 out of the 11 players (atleast) need to be Indians. This rule has major consequences on the monetary value that a player receives.

**Indian players are more valuable than Foreign players:-**

If we look at the numbers, we can clearly see that the teams prefer to invest in Indian players and players who are familiar with the Indian subcontinent conditions. Even though a foreign player may be better in terms of skill and statistics than an Indian player, due to the 4/11 rule an Indian player is more valuable to teams. The below data shows how more and more teams have started investing in Indian players.

<table>
<thead>
<tr>
<th>Percentage of money spent on Indian and foreign players</th>
<th>Auction 1-3</th>
<th>Auction 4&amp;5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indian players</td>
<td>37.7%</td>
<td>54.2%</td>
</tr>
<tr>
<td>Foreign Players</td>
<td>62.2%</td>
<td>45.7%</td>
</tr>
</tbody>
</table>

The video in the link below shows an Indian resource who has been out of the international squad for 2 years still got the highest price at the auction. His base price was set at around $350,000 (2 crore INR) and he eventually got sold at close to $3,000,000 (16 crore INR):-
https://www.youtube.com/watch?v=7Ie5PrUHCVE

**Foreign player availability:**

The IPL is held every year around the months of April and May. During this time foreign players might have international tournaments and therefore may not be available during the entire tournament. We can see that over the years, team owners are now using this in their evaluation techniques as well.

<table>
<thead>
<tr>
<th>Percentage of money spent on unavailable players of the total money spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auction 1-3</td>
</tr>
<tr>
<td>---------------</td>
</tr>
<tr>
<td>30%</td>
</tr>
</tbody>
</table>


**Cultivating local talent and buying them young:**

A large emphasis is laid by the teams to cultivate local talent. Resources that know the conditions well and have youth on their side are also heavily favored by the team owners.

The below table gives the correlation of Indian players and the performance of the team in the IPL.

<table>
<thead>
<tr>
<th>Team</th>
<th>Auction 1-3</th>
<th>Auction 4&amp;5</th>
<th>Table Position in IPL</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Indian</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chennai Super Kings</td>
<td>34%</td>
<td>66%</td>
<td>68%</td>
<td>4</td>
</tr>
<tr>
<td>Mumbai Indians</td>
<td>42%</td>
<td>58%</td>
<td>72%</td>
<td>3</td>
</tr>
<tr>
<td>Team</td>
<td>Win%</td>
<td>Tied%</td>
<td>Lost%</td>
<td>No Result%</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------</td>
<td>-------</td>
<td>-------</td>
<td>------------</td>
</tr>
<tr>
<td>Royal Challengers B'lore</td>
<td>32%</td>
<td>68%</td>
<td>54%</td>
<td>46%</td>
</tr>
<tr>
<td>Kolkata Knight Riders</td>
<td>38%</td>
<td>62%</td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
<td>Delhi Daredevils</td>
<td>41%</td>
<td>59%</td>
<td>72%</td>
<td>28%</td>
</tr>
<tr>
<td>Kings 11 Punjab</td>
<td>51%</td>
<td>49%</td>
<td>49%</td>
<td>51%</td>
</tr>
<tr>
<td>Rajasthan Royals</td>
<td>35%</td>
<td>65%</td>
<td>11%</td>
<td>89%</td>
</tr>
<tr>
<td>Deccan Chargers</td>
<td>29%</td>
<td>71%</td>
<td>27%</td>
<td>73%</td>
</tr>
<tr>
<td>Kochi Tuskers Kerala</td>
<td>NA</td>
<td>NA</td>
<td>48%</td>
<td>52%</td>
</tr>
<tr>
<td>Pune Warriors India</td>
<td>NA</td>
<td>NA</td>
<td>64%</td>
<td>36%</td>
</tr>
</tbody>
</table>


**References:**


**Further reading:**