



IS 603 Decision Making Support Systems

NBA game analysis for Players
selection and increasing fan base

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Introduction

- The American Basketball Association was established in 1946
- Currently consists of 30 teams
- Boston Celtics have won the most championships
- Double round-robin format for games
- Finals in the best of seven



Business decision

- ❑ Predicting actions
- ❑ Tools and Techniques in NBA



Decision opportunity/justification

- ❑ This projects aim is to provide a complete analysis of large teams Vs Small teams.
- ❑ This highlights finding the right talent from universities and schools.
- ❑ The project Focuses on increasing Fan base for the franchise.



Decision context / background

- The dataset is taken from <https://www.kaggle.com/noahgift/social-power-nba>
- Data Sources : NBA website data, Social Power NBA, NBA player statistics.
- Validity of the Data ?
- The data has several attributes like : positions, college, games_won, games_lost
- Data Pre Processing
- Decisions regarding team selection, university recruitment, players position, salaries for the players and many more

Decision assumptions:

1. Player performance and market value.
1. Player performs well if he is trained well.
1. Salary is directly proportional to the value provided to the team.

Decision factors explanation and justification

- ❑ Player selection depends on the various factors like their performance, training and past records.
- ❑ Prediction of the team winning the league is decided on how strong the team is.
- ❑ High revenue generated.

Decision method/approach:

1. **Command:** when decisions are made without involving others.
2. **Consult:** when a person invites input from others but ultimately one person makes the decision.
3. **Vote:** when options are discussed across the group and then a vote is called, where the most favorable option to the most people is chosen.
4. **Consensus:** when the group discusses the options and recommendations until everyone agrees to one course of action.

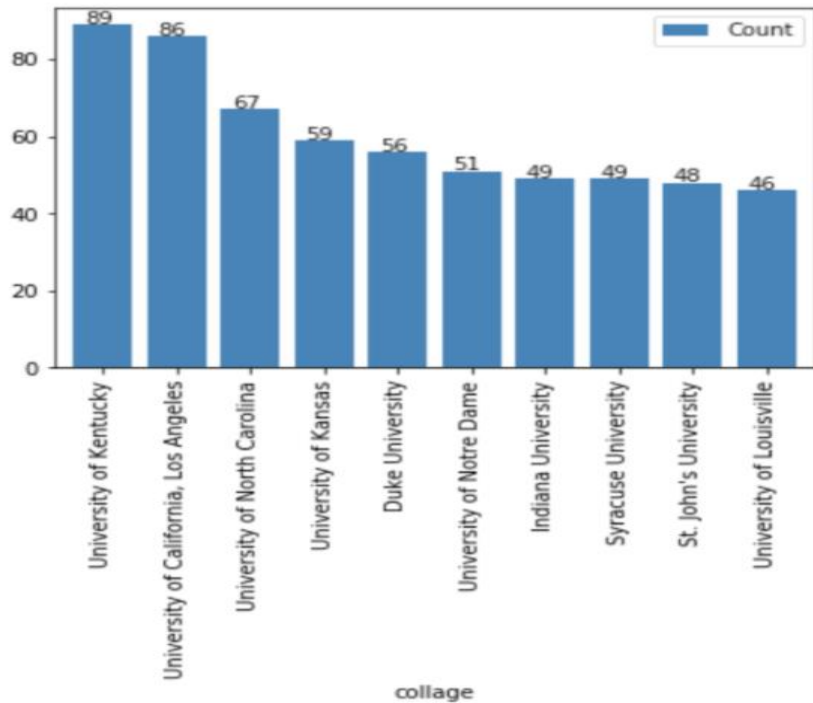
Risk factors-

- ❑ If the star player of the team is injured the whole season for that team is squashed.
- ❑ Talented players from the small team joining the large team as they receive more benefits.
- ❑ Taller player can block the opponent when making a shot. This can be seemingly unfair and frustrating aspect of basketball for short athletes.

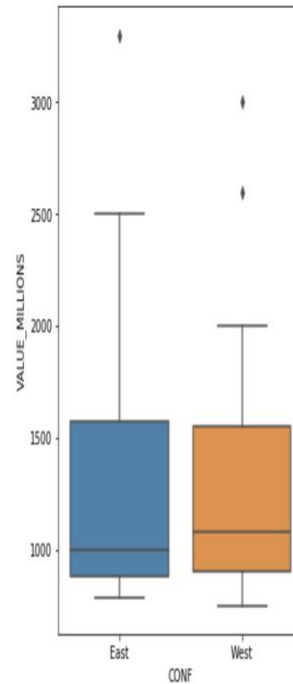
Decision confidence with supporting justification

- ❑ It is very evident that the big-market teams do stronger than the small-market teams.**
- ❑ Competitive balance is very essential in every league.**
- ❑ New talent can reduce the team expenses as where the senior players gets the most and the new one gets the least.**
- ❑ Fan base can be increased with the involvement of new fresh players**

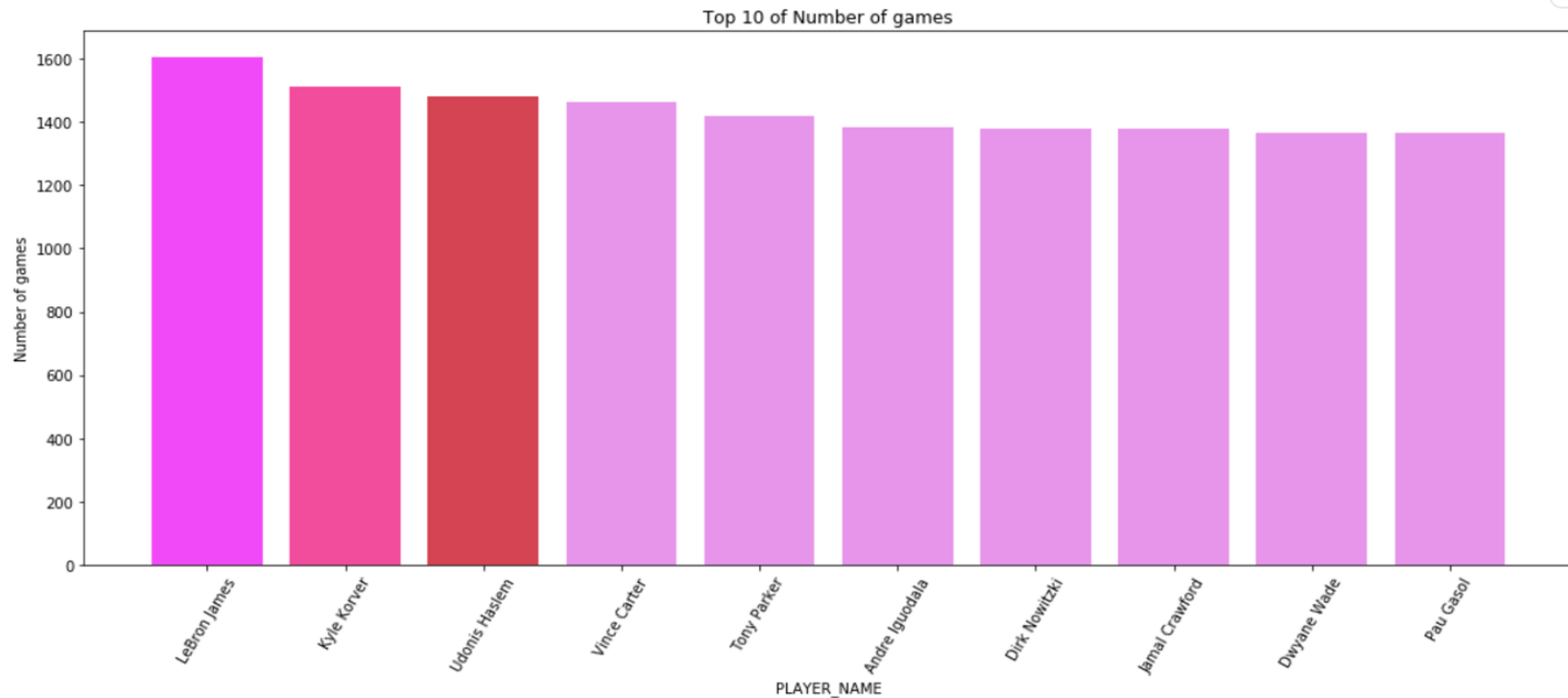
Decisions taken



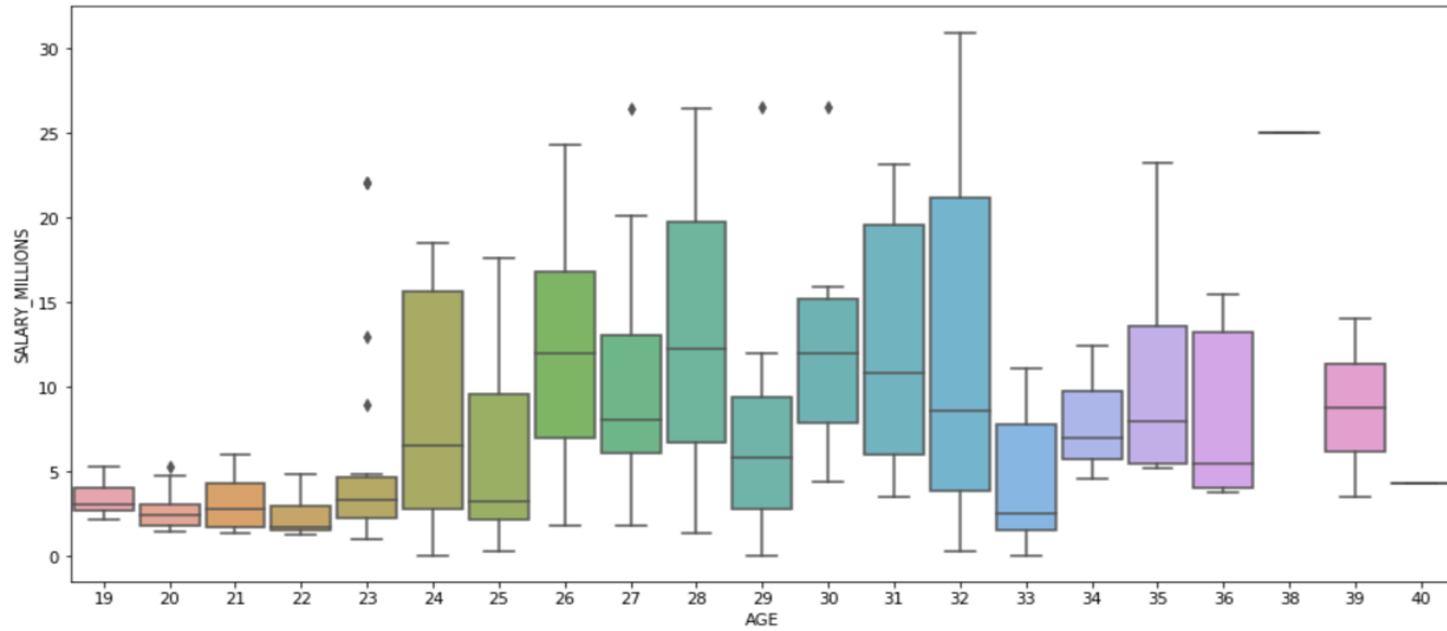
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Top Players



Salaries of the players



THANK YOU