NUMBERS IN SPORTS

Sports analytics refers to the collection of relevant and historical statistics that can provide competitive advantage to a team or individual during their competition. It is also referred to as 'Sabermetrics'. Numbers can be used to boost a team's performance. The analysers present collect and analyse the data so that they can inform the players, coaches, other staff in order to facilitate decision making both during and prior to sporting events.

There are two key aspects of sports analytics — on-field and off-field analytics. On-field analytics deals with improving the on-field performance of teams and players. Off-field analytics deals with the business side of sports. It focuses on helping a sport organization or body surface patterns and insights through data that would help increase ticket and merchandise sales, improve fan engagement, etc.

The main role of a sports analyst is to help individual players and teams to perform better by performing analysis and help them play according to their strengths.
For example: A cricket analyst studies the past few games and finds out against which bowler/delivery a batsman struggles against. He then comes up with a plan to improve his shot selection so that he performs in the forthcoming matches. In the bowler's case, he reviews previous videos of opponent batsmen so that they can find a weakness and comes up with a plan to exploit the batsmen's weakness. If the overall game is taken into consideration, then an analyst studies pitch conditions, weather reports, key matchups and comes up with plan and backup plans to exploit the opposition bowling and batting line-ups.

A football analyst also performs such roles for his/her team and works with the strikers, defenders, midfielders, etc to help them improve and rectify their mistakes before the next game.

The question that arises in the minds of many people is that why would anyone pursue a career in this field. There are many reasons to pursue this as a full-time career. With sports analysis, one can build better fantasy teams, identify patterns in matchups, predict player performances and make informed decisions based on logic and not based on emotions and favouritism. One also doesn't need much of a technical degree to pursue this career. Anyone can become a talented cricket analyst if they follow the proper path and build their personal brand in this industry.

Analysing what a sports analyst of today does behind the scenes—He/she extracts raw data of player performances, matches and identifies patterns in the data, turns them into actionable insights that can help a player or team perform better. Nowadays the analysts use Python language to organise and analyse the data. They organise the numbers into graphs and charts so that it is easier for the players and coaches to visualize the extensive amount of data. They use functions from python libraries like Pandas and Matplotlib to turn numbers into visualization. They also legally scrap data from the internet to perform their research and analysis. This complete data driven analytical approach has helped teams win championships over the past few years.

Using this concept of Moneyball a.k.a sports analytics English county side Northamptonshire managed to win the England T20 Blast Championships three times in the last five years.

Sports analytics as a working model:

A live example:

During the 2021 edition of the Indian Premier league that was held at UAE, three stadiums were used: the Abu Dhabi International Stadium, Dubai Ring of Fire and the Sharjah Cricket Park. On analysing the games played at the Dubai Ring of Fire, it was observed that 75% of the matches were won by the teams that batted first. The average first innings total across the 25 games that were played at this venue was 168 runs. From further observations it was concluded that if the team could score more than 177 runs, they would win the game 90% percent of the game.

This data would be collected before a match starts and then put into action. It would be obvious that any team that wins the toss would elect to bat first. The most likely strategy that would be implied for this match would be as follows:
To get 177 runs or more, the team ideally would need 20 boundaries, 5 sixes, and 67 runs in ones and twos from the remaining 95 balls left (given that it is a 20 over game). Next the coach assigns specific roles to each player. Player A's task would be to hit 3 of the 5 sixes. Player B's task would be to be the anchor and get 40 runs in ones and twos and every other batsmen could hit four boundaries each. This process not only exploits the numbers but also helps to develop a sense of responsibility needed to play the modern game. The teamwork also gets stronger and players exactly know what role to play once they are out there in the middle of the park.

Technological advances in the field of sabermetrics:

With the advancement of new technologies like Machine Learning, Artificial Intelligence, etc the sports field has also taken a new turn. It is now possible to predicts results of various matches accurately even before the match has even started. The data from previous matches is input into machine learning models and the result is obtained. Artificial Intelligence in the form of ball tracking is used during the decision review system during international matches. The decision review system (DRS) is used when a team wants to challenge the umpire's decision as they feel the on-field decision is incorrect. The DRS is mainly taken for close leg before wicket (LBW) calls. AI is also used in tiny chips that are embedded in cricket bats nowadays so that a batsman during practise can get the timing right and can middle the ball well during their respective net sessions.

Sabermetrics and the use of numbers in sports is growing day by day and will be more extensively used in the coming years by all teams in all sports. It won't be limited to only international matches. Even domestic leagues would try their best to exploit these numbers and gain positive results.