

# How to get to the top of a league with Data Mining support



The sports world is known for the vast amount of statistics that are collected for each player, team, game, and season. This can result in data overload for those trying to derive meaning from the statistics. That's why sport is an ideal area for Data Mining tools and techniques. These tools can analyse a large volume of statistics changing meaningless numbers into comprehensible and most key actionable sets of data, which would not have been visible any other way. This can mean superiority of the strategy used on the field when facing the next opponent or reducing the number of injuries, getting the best use out of available resources (players and funds). The ultimate goal "winning the league" and bringing pride to the fans.

Numerous organisations in the field of business have shown that great success and lucrative outcomes can be accomplished through implementing Data Mining.

For example, supermarkets use Data Mining routinely when deciding on their strategies for sales and marketing. By analysing how people shop, unexpected links can be made for example between the sales of babies' diapers and beer (not a two products that you would naturally put together). Based on this result, supermarket placed beer close to the babies' diapers, which resulted in a significant increase in terms of beer sales. Another salient example is a well-known credit card provider. It built a Data Mining model to examine millions of pieces of data and calculated "purchase scores" — customer's

propensity to make purchases, which not only provided merchants with valuable information, but also greatly reduced marketing expenses.

Sports organisations, due to the extremely competitive environment in which they operate, need to seek out any edge that will give them an advantage over others. It would appear that the culture has long encouraged analysis and discovery of new talent exhibited by its longstanding utilisation of scouting. However, traditionally sports knowledge has been believed to be contained in the minds of its experts — the players, coaches, and managers. Only recently have sports organisations begun to realize that there is also a wealth of knowledge contained in



their data. Currently, large teams and sports organisations employ in-house statisticians and analysts to retrieve meaning and insight for the scouts who evaluate future prospects and talent, the coaches who are in charge of the team on the playing surface, as well as the general managers who are in charge of drafting or signing players. But what about the second and third league

teams? Do they utilise the strength of the Data Mining? The importance of Data Mining will become a critical component of running, selling and marketing sports teams. Similarly, the concept of data mining will become mainstream in sports as an effective complementary marketing tool in the future.

The benefits of executing data mining are as follows: implementing up-selling, increasing season-ticket sales, monitoring season-ticket usage, raising transplanted-fan ticket sales, and executing cross-selling. Additionally, other benefits include:

- ⊕ retaining current fans,
- ⊕ determining customers' lifetime value,
- ⊕ developing relationships with customers,
- ⊕ improving delivery of sales promotion,
- ⊕ reinforcing consumers purchase decisions,
- ⊕ customising consumer services,
- ⊕ facilitating marketing research,
- ⊕ profiling the customers,
- ⊕ identifying the best customers for an organization.

Purchase of the players: the games are won by the teams and not individual players. The Data Mining process can be used in selecting the best players, to build a strongest team. The players that will complement each other with their set of skills and attitude during the game. That is something that is very much predetermined and can be enhanced when properly coached.

Data mining can also be applied by coaches to identify player patterns that box scores do not reveal, it can help win games by extracting relevant information from the database. From the coaching perspective, Data Mining can aid with suggestions on the strategy for the next game (specifically against the opposing team, players and their strategy). Information about the performance of each player can be controlled and things such as peak performance, effectiveness during the part of the game and possibility of injury can be forecasted. Utilizing data mining in this way makes it easier for coaches to make

decisions about when and how to position their players for maximum effect. The coaches can employ the Data Mining application to know what kinds of plays opponents will be using. Data Mining applications help analyse a huge amount of data to reveal winning player combinations for coaches. Moreover, the data mining approach to postgame analysis and improvement takes much less time than the traditional approach — forever rewinding the videotape.



In summary, clubs with the aspiration to deliver the absolute best from their teams should be adopting Data Mining. They can use it to increase ticket sales revenues and season-ticket holders' renewal rates. The coaches can utilise Data Mining technology to get the most out of their players. Consequently, data mining is a powerful technique with a flexible application in sport.



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