What Sports Analytics can teach businesses

The book *Moneyball* by Michael Lewis was published in 2003. It was the first popular cultural product to describe how analytics can transform a professional sport. Since that time, sports analytics have increased greatly in influence. The MIT Sports Analytics Conference, for example, sells out every year, and attendance has increased from 175 attendees its first year in 2007 to almost 3,000 in 2014. ESPN The Magazine publishes a special issue each year on sports analytics. Almost every major league baseball team now employs at least one quantitative analyst, and so do many professional football and basketball teams. There are also analytical professionals who are employed by college, and even high school, sports teams.

In general, sports teams are still behind businesses in their sophistication and use of analytics. They’re typically fairly small businesses that often can’t afford major investments in the capability, and the idea of using analytics to compete is relatively new. Despite this, there are several important lessons that businesses and other types of organizations can learn from the use of analytics in sports. The following 10 lessons come from research I conducted on more than 25 professional teams that resulted in a report on sports analytics.

**About the 10 Lessons series**
This set of lessons from Sports Analytics is the first in a series. Each installment will focus on a different non-business sector that is effectively using analytics to improve performance and decision-making. From each sector, we’ll extract 10 lessons that can be applied to the business use of analytics.
The importance of aligned leadership.

In sports, key decisions have to be made and overseen at multiple management levels. Alignment about the methods to be used in making such decisions is critical for a sustained, consistent approach. The Dallas Mavericks, a professional basketball team, provide an excellent example of alignment around analytics. Owner Mark Cuban and coach Rick Carlisle are strong supporters and users of analytics, and they’ve hired the well-known analyst Roland Beech, who sits on the bench during games. After the Mavericks won the National Basketball Association (NBA) championship in 2011, Cuban, a former Internet entrepreneur, commented to ESPN, “Roland was a key part to all this. I give a lot of credit to Coach Carlisle for putting Roland on the bench and interfacing with him, and making sure we understood exactly what was going on. Knowing what lineups work, what the issues were in terms of play calls and training.”

Aggressive use of external data, often from video and locational devices.

Sports teams are increasingly using video and locational data to improve performance and decision-making. In the NBA, for example, there are six cameras in the ceiling of each arena that capture all movements of the players and ball. In Major League Soccer, each player wears a GPS-based locational device that captures all movements around the field. All Major League Baseball (MLB) ballparks have cameras that track every pitch, and many teams also track every hit and fielding play with video cameras. Aside from aggressive adoption of new technology for data capture, the key lesson for businesses is the need to develop capabilities to analyze the data, the amount of which can quickly become overwhelming. Given the massive amount of data being generated, there are probably not enough capable humans on the planet to extract all the possible findings. Some professional leagues, such as the NBA and MLB, have taken on many analysis tasks in conjunction with the data vendors.
It’s all about the people who play the game.

Sports analytics have primarily been focused on players—which ones to seek in the draft, which ones to put in the game, which ones might be overpaid. Most statistics measure individual player performance, and everyone on and off the team knows how a player is doing. Businesses, on the other hand, have been relatively slow to address HR analytics. Poorly performing businesspeople can typically keep their jobs far longer than poor athletes. Human performance analytics should be much more of a focus in the future of business.

Ultimately, it’s how the team performs, not the individuals.

The reason professional baseball was an early adopter of analytics is that it is relatively easy to measure the performance of individual players. However, baseball, like most other professional sports and all businesses, is a team sport. Particularly in the NBA, teams focus on how the team performs when a player, or group of players, is in the game versus out of it. Even if a player has mediocre point and rebound totals, the team may perform better when that player is on the court. Variations on this type of “plus/minus” analysis could be applied to businesses as well. How does a group or unit perform when a particular manager is overseeing it, and how does performance change when that manager leaves?

Focus on analytical amateurs.

In some sports—especially baseball—individual players have begun to analyze their own performance and create improvement programs based on the results. Pitchers Brandon McCarthy and Brian Bannister are perhaps the best examples. Bannister, now retired from baseball, analyzed relatively obscure metrics on his own performance, including batting average for balls in play (BABIP), and expected fielding independent pitching (xFIP). He also closely watched PITCHf/x videos for evidence about which types of curveballs are most difficult for hitters to hit. While Bannister was somewhat successful in improving his own performance—in his own words, he moved from a “typical fringe guy” to be his team’s fourth starter—he inspired Kansas City Royals teammate Zack Greinke to adopt similar sabermetric analyses of his own performance. In 2009, Greinke won the American League Cy Young award for best pitcher for the season.

Baseball—like most other professional sports and all businesses—is a team sport.
Get help from the ecosystem.

Pro sports teams are essentially small businesses. They can’t afford to build up big IT or analytical staffs, to gather all their own data, or write their own software. Smart teams like the Orlando Magic and San Francisco Giants, for example, have created strategic partnerships with vendors of data, analytical software and hardware, and communications. The same is true, of course, for small-to-medium businesses—they need just as much help from their ecosystem. Even large organizations can often benefit from strategic partnerships with external suppliers of analytical resources.

Take an enterprise approach to organizing analytics.

Most teams don’t nurture much contact between analysts working on team and player performance and analysts working on business analytics, such as ticket pricing and targeted marketing. But given their small size, teams would be better served by combining these groups of analysts and prioritizing the problems they work on. Teams like the Orlando Magic and the Phoenix Suns have done this. Businesses are more likely than pro teams to have taken an enterprise approach, but there are still many companies with analytical silos that don’t collaborate.

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Communications are critical.

I have often heard coaches and general managers say that analytics are useless in sports unless the “quants” are good at explaining their analyses and results in clear, sports-related terms. It’s often argued that if analysts don’t know baseball (or basketball or football or soccer), they will not be able to effectively relate their analytics to those who make decisions. The same is true in business. I hear requests for people who can “tell a clear story with data” almost daily.

Work closely with your technologists.

The technology for analyzing all these new data sources is critical—and changing fast. Analysts likely won’t get much done without a close partnership with the people who manage the video server or those who can bring season ticket-holder information into the team’s data warehouse. Similarly in business analytics, marketers, HR professionals, and product developers need to establish close relationships with their IT people. In sports and business, analytics is a team sport.

Enlist the external public to help with analysis.

Amateur fans have long been some of the most talented analyzers of sports data. Some very capable amateurs, such as Bill James in baseball and Roland Beech in basketball, have been hired by teams (the Boston Red Sox and Dallas Mavericks, respectively). Some teams, such as Manchester City in the English Premier League in soccer, have released their own player and performance data to any fan who wants to analyze it. So far more than 5,000 have registered and downloaded the data.² Businesses should think about open data initiatives as well to enlist their customers in solving key problems.

It’s often argued that if analysts don’t know baseball (or basketball or football or soccer), they will not be able to effectively relate their analytics to those who make decisions. The same is true in business.
Of course, sports teams should also learn from what businesses are doing, and many have done just that. But the practices of leading professional teams suggest that there is much to be learned from looking at analytical lessons outside of one’s own sector.

**Contact**

To learn how you can up your analytics game, contact us.

**Dave Rudini**  
SAS Global Alliance Leader  
Principal  
Deloitte Consulting  
212 618 4686  
drudini@deloitte.com

**Claire McPherson**  
SAS Global Alliance Manager  
Senior Manager  
Deloitte Consulting  
919 645 6245  
cmcpherson@deloitte.com

**Scott Van Valkenburgh**  
Senior Director  
Global Alliances  
SAS Institute Inc.  
919 531 0611  
scott.vanvalkenburgh@sas.com

**Lynne Ross**  
Manager  
Global Alliances  
SAS Institute Inc.  
919 532 7029  
lynne.ross@sas.com

**Endnotes**

About the author
Tom Davenport is the President’s Distinguished Professor of Information Technology and Management at Babson College, a Senior Advisor to Deloitte Analytics, the co-founder of the International Institute for Analytics, and a Fellow of the MIT Center for Digital Business. He teaches analytics and big data in executive programs at Babson, Harvard Business School, MIT Sloan School, and Boston University. He pioneered the concept of “competing on analytics” with his best-selling 2006 Harvard Business Review article (and his 2007 book by the same name). His most recent book is Big Data@Work, from Harvard Business Review Press.