Can They Handle the Pressure?: An Analysis of Major League Baseball Playoff Races

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Determination of team performance during playoff races has relevance across a number of academic disciplines including psychology, sport management, and organizational theory (Deci, 1975; Heider, 1944; Martens, Vealey & Burton, 1990; Thom, 1977). Related research has historically been devoted to the performance of teams or individuals during a regular season or during the playoffs (Depken, 2000; O’Roark, 2001; Whitney, 1998), but performance during playoff races is a relatively new area of research. If all professional organizations simply performed based on the quality of the two teams involved in a contest, competitions would become highly predictable. The purpose of this study is to isolate variables related to team quality and to then determine possible external factors that could help further explain the performance of an organization during a playoff race. An example of external factors under consideration is the distribution of league standings, namely the number of teams within a playoff race and the number of games back a team is.

Method

I will test for the impact of external factors on team performance during eleven years (2004 to 2014) of playoff race games. Specifically, I use the number of games behind to identify playoff race games. Games from the beginning of September to the end of the regular season in Major League Baseball (MLB) will be analyzed. These games are especially beneficial from an analysis perspective due to the fact that rosters expand at that point and players need to be with that organization by that date to be eligible for the postseason roster and this is also the day after the waiver trade deadline has passed. The timeframe of data also allows for analysis of two different playoff structures as one additional Wild Card team was added to each league in 2012. A regression will be run that estimates the impact of external factors such as distribution of standings, managerial experience, attendance, momentum, and the time the game is played in comparison to others teams in the race, while holding the quality of the teams involved in a game constant. Only games with teams involved in a defined playoff race in which a team has a legitimate opportunity for qualifying for postseason play will be included within the data analysis. Although baseball’s production function consists of separable player factor input (Zech, 1981; Ruggiero, 2011), crucial to the analysis is considering the overall performance of a team as aspects such as hitting have been determined over an extended period of time and can therefore be seen as strong predictors of the future. To ensure that results are robust and the hypothesis is properly tested, several aspects of team quality will be analyzed including the Wins Above Replacement (WAR) for a team (which considers batting, pitching, and defense), team payroll, team winning percentage, runs per game, and runs against per game.

Findings

Preliminary results suggest that the performance of a team in a playoff race is not simply based upon the quality of the players on a roster in terms of the statistics of a team throughout the season. While the results are a test of performance prediction, they have broader implications on MLB. Organizations that become aware will be able to find out what factors can help push them from being a team that just misses out on qualifying for the postseason to being a team that gets into the playoffs and therefore is able to attain additional revenue and gain a legitimate opportunity at winning the World Series.

Given the recent attention to the impact of additional factors that impact the performance of a team, studies that examine external factors on team performance in playoff races are relevant to a broad spectrum of disciplines. Sport psychologists can work with athletes in the case that factors negatively impact the way a team performs to get them in the right mentality to succeed. Sport managers can bring in appropriate coaching to help a team get over the hurdle of postseason qualification. Organizational theorists can investigate the rationale as to why the quality of a team could help specific organizations more than others in key situations.