The Advantage of Experience: Analyzing the Effects of Player Experience on the Performances of March Madness Teams

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The top Division I men’s basketball programs in the National Collegiate Athletic Association (NCAA) gather each March to compete in March Madness, a grueling single-elimination tournament that captures the attention of millions of viewers and shines a prominent spotlight on the 68 teams that are competing for college basketball's national championship. Interspersed amongst the numerous financial incentives that exist for each university, and the millions of dollars that are wagered on brackets and bets, are the suggestions of media members, coaches, and players highlighting which factors are important to teams in their quest for success. One common suggestion argues that player experience is beneficial to teams as they attempt to handle the pressure and maintain their composure amidst one of the most hectic post-seasons in sport.

However, few studies have been conducted to analyze the effects that the two primary categories of player experience (i.e., prior postseason experience and class rank) have on the performances of March Madness teams. Rather, prior research has focused on explanatory variables that are more tangible (i.e., easier to quantify and explain) in nature, and the shallow body of work examining experience’s impact on sporting performance has been conducted almost exclusively within the contexts of professional sport (Pitts, 2016; Tarlow, 2012). The primary results of these studies suggest that player experience has little to no effect on teams’ postseason performances.

Nonetheless, these findings do not translate directly to an intercollegiate setting where the athletes are neither reassured by guaranteed financial incentives nor as accustomed to the stresses of the spotlight. The previous studies have also suffered from a lack of specificity in the operationalization of their variables and have frequently positioned all levels of postseason competition as being equal in terms of significance. This study therefore sought to address these issues by exploring whether or not having more experience than an opponent in terms of prior March Madness experience or class rank lent an advantage to teams competing at various stages of the tournament.

Studies in areas outside of sport have shown prior experience to be beneficial in a number of stressful situations, ranging from police patrols to natural disaster response units (Anshel, Robertson, & Caputi, 1997; Norris & Murrell, 1988). There even exists a theory, the inoculation hypothesis, designed to explain how exposure to a specific form of stress increases one’s resistance to subsequent levels of that stress (Eysenck, 1983). Indeed, even the business and management tracks have shown that both the financial performances of companies and the job performances of employees are positively related to experience (Quiñones, Ford, & Teachout, 1995). It is therefore interesting that professional sports studies did not reveal similar results. As such, a study conducted within the collegiate realm may provide more evidence of this phenomenon and offer suggestions for sport managers moving forward.

In an effort to examine whether or not having more experience impacted a team’s probability of winning, a binary probit model (\( \text{WIN} = 1 \) or \( 0 \)) was created using data from every March Madness game (outside the First Four) that was played from 2007 to 2017 (\( N = 693 \)). After randomly assigning one team as team \( i \), and its opponent as team \( j \), the model was estimated as:

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\Pr(\text{WIN}_{ij} = 1) = \beta_0 + \beta_1(\text{WIN}\%_{ij}) + \beta_2(\text{SOS}_{ij}) + \beta_3(\text{ORTG}_{ij}) + \beta_4(\text{DRTG}_{ij}) + \beta_5(\text{MMEXP}_{ij}) + \\
\beta_6(\text{CLASS}_{ij}) + \beta_7(\text{COACH}_{ij}) + \beta_8(\text{ONE}_{ij}) + \beta_9(\text{EHT}_{ij}) + \beta_{10}(\text{YEAR}) + \epsilon_{ij},
\]

where \( \text{MMEXP} \) was the vector of variables describing the prior March Madness experience of team \( i \) relative to team \( j \), \( \text{CLASS} \) was the vector of variables describing the class rank of team \( i \) relative to team \( j \), all other variables (\( \text{WIN}\% \)
= winning percentage; SOS = strength of schedule; ORTG = offensive rating; DRTG = defensive rating; COACH = prior March Madness games coached; ONE = percentage of minutes played by one-and-done players; EHT = effective height, in inches, of the team’s centers and forwards; YEAR = categorical dummy variable denoting the season, with 2007 as the baseline) were used as controls relating team i to team j, the β’s were parameters to be estimated, and εij was a random error term. In addition to the overall sample, the model was also used to analyze restricted samples of games ranging from the 528 games that were played in the Round of 64 and the Round of 32, to the 165 games that were played from the Sweet 16 onward. This way, the effects of experience could be assessed as the tournament progressed and the pressure mounted. An ordinary least squares regression model using margin of victory or defeat (MARGIN) as the outcome variable was also employed.

When treating all March Madness games as being equal, the more tangible indicators of team quality (WIN%, SOS, ORTG, and DRTG) were the only variables that achieved regular significance. The same held true in the restricted samples of early round games. However, when analyzing the later rounds of the tournament, prior March Madness experience (MMEXP) had a significant effect on the probability of a team winning and the margin by which it would be expected to do so. Interestingly, class rank, alone, was not a significant predictor of team performance in any sample. Taken together, these results suggest that simply having a higher class rank than an opponent offers no discernible advantage at any stage of the competition, but possessing more prior March Madness experience may increase a team’s probability of winning in the later rounds. Ultimately, these results have implications for coaches and colleges that rely on March Madness games as a source of income, the gamblers that wager millions of dollars on match outcomes, and the media members that have turned this into one of March Madness’s most oft-cited clichés. From additional theoretical and practical perspectives, these findings also hold implications in the fields of economics and psychology that warrant further discussion.