Competitive Balance and Game Attendance in Korean Professional Baseball League

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Sports leagues have long been aware that their success depends on staging games with an uncertain outcome. There is an extensive literature on the economics of professional sports leagues, much of which emphasizes the importance of uncertainty of outcome in explaining the attendance of sports events. There have been numerous previous studies examining the relationship between fan attendance and competitive balance in order to verify the uncertainty of outcome hypothesis, but the results have been inconsistent. Although the majority of studies found that there is a difference in attendance depending on competitive imbalance in most professional sports leagues (e.g., Eckard, 2001; Hogan et al. 2013; Humphreys, 2006; Lee & Fort, 2005; Levin & McDonald, 2009; Schmidt & Berri, 2001; Soebbing, 2008), other studies have also shown the opposite result (e.g., King, Owen, & Audas, 2012; Mills & Fort, 2014; Szymanski, 2001).

This study aims to analyze whether the uncertainty of outcome hypothesis pertains to the Korean Professional Baseball League (KPBL). Specifically, the purpose of this study was to examine the competitive balance of the KPBL and investigate socioeconomic factors that may influence attendance. A structural time-series model was estimated to investigate the relationship between competitive balance and average game attendance in the KPBL from 1982 to 2012. We added to and amended previous work by analyzing the time series behavior of KPBL attendance exploring a wide variety of measures of game uncertainty.

The results of ordinary least squares (OLS) regression indicate that uncertainty of outcome, as measured by competitive balance, is a significant determinant of attendance for KPBL. In addition, the results indicated that gross domestic product (GDP) and ticket price had positive impacts on attendance, countering the typical law of price-to-demand, whereas the financial crisis and the World Cup had negative impacts on attendance, confirming the effects of economic circumstances and substitutes. Finally, it was revealed that the achievement of the Korean national team in international events was not significant, leading to the necessity of variable substitution and further analysis.

This research has important implications for policymakers of KPBL and other professional sports leagues by suggesting the possibility of increased attendance with increased competitive balance, which confirms the significance of competitive balance in terms of product-out causes as well as market-in causes to accurately estimate fan demand. Given the time period of thirty years for our study, it seems reasonable to suspect that several factors have affected on fan demand. Therefore, this study has valuable theoretical implications as well, in that we considered various influencing factors missing in the previous fan attendance literature.