RIVALRY AND VIEWERSHIP OF NATIONAL FOOTBALL LEAGUE OUT-OF-MARKET GAMES

Abstract ID: EASM-2015-140 - (657)

All authors:
Hojun Sung (corresp), Brian Mills, Scott Tainsky

Date submitted: 2015-03-20

Date accepted: 2015-04-14

Type: Scientific

Keywords: rivalry, intra-game changes, viewership demand,

Category: 6: Sport Economics and Finance

Synopsis:

Abstract:
INTRODUCTION AND LITERATURE REVIEW
Rottenberg (1956) described the first demand specification for professional sport, carefully noting that the league product was dependent on both cooperation and competition between firms. Competition can often result in more specific heated rivalries, shown to influence demand for sporting contests and infusing additional significance to each match beyond the simple league standings impact of the game itself (Buraimo, & Simmons, 2008). However, while cooperation and competition create league scheduling and fan excitement, respectively, the nuance with which rivalry can influence demand has largely gone unexplored. Sport is replete with rivalries between teams within a region or division, offering a desirable laboratory for understanding human interest in competition more generally. This additional interest may mean both more consumers for a given match, and keeping consumers engaged for a larger percentage of the game depending on their respective rivalrous relationship with the competing teams.
Therefore, this research estimates variations in consumer behavior as it relates to television ratings during out-of-market rival NFL games and the team to which these fans are most likely to be loyal. Additionally, we identify the moderating effects of game score margin on interest among fans of a team that is a classic rival of one or both of the teams in a televised contest. In particular, Xu, Sung, Tainsky, and Mondello (Forthcoming) found that fans in the winning team's market tend to stay tuned when their team is winning at a rate higher than the losing market fans, or neutral fans. However, in this work, we hypothesize that the possibility of fans of rival teams taking Glory Out of Reflected Failure (GORFing; Havard, 2014) predicts that otherwise neutral fans viewing an out-of-market game will remain tuned in similarly to that of the winning markets in Xu et al. (Forthcoming).

DATA AND METHOD
Television ratings for each game of the NFL regular season from 2007 to 2009 were collected from Nielson Local People Meter (LPM) markets. Any game that was broadcasted in any market without a home market team participating was categorized as a neutral market game. For those markets that have one or two divisional rivals playing in the game, we indicate such using the variable DivisionRival. In order to measure the variation in viewership during the game, this paper borrowed equation from intra-game variation measurement from Xu et al. (Forthcoming) as the dependent variable:

RatingsDrop= (RatingsMax-RatingsFinal)/RatingsMax

The RatingsMax denotes the maximum rating for any interval within a game and the RatingsFinal denotes the final rating for each game. What the RatingsDrop captures is the viewership loss from the maximum number of viewers who tuned in for any interval to the viewers watching in the final interval for each game. Panel tobit regression (with standard errors robust to game clustering and heteroskedasticity) was used to adjust for the zero-bounded RatingsDrop variable. We specify our model as:

RatingsDropi,j = β0 + β1TotalLagWinPcti,j + β2WinPctDiffi,j + β3AgeDiffi,j + β4ScoreMargini,j + β5ScoreMargin2i,j + β6DivisionRivali,j + β7DivisionRivali,j* ScoreMargini,j + εi,j

We include fixed effects for viewership market, day of week, year, and month. TotalLagWinPct is the sum of both teams' prior year winning percentage to measure overall perceived game quality, while WinPctDiff is the absolute value of winning percent difference between the featured teams to measure of Uncertainty of Outcome. AgeDiff indicates the age gap between home and away teams. ScoreMargin identifies the difference in score of the home and away teams at the conclusion of the game. Lastly, the interaction term between DivisionRival and ScoreMargin identifies the moderating relationship of game competitiveness and propensity for out-of-market fans of rival teams to remain tuned in when their rival is losing.

RESULTS AND DISCUSSION
We find that when rival teams of otherwise neutral market viewers are featured, RatingsDrop is less extreme than in other neutral markets. Additionally, when games were less competitive, there was some evidence that the difference in RatingsDrop was larger between out-of-market viewers watching their rival and more neutral out-of-market viewers. Our evaluation of the GORFing hypothesis is still under analysis, with ScoreMargin measurements anchored to market type (rival or non-rival out-of-market viewers). As noted before, we expect a smaller RatingsDrop among out-of-market viewers classified as rivals when viewing a losing rival team. These preliminary, and expected, findings have important implications for sport managers in scheduling rivalry to increase not just home market, but also ancillary interest, and builds upon the lessons regarding contingent in Xu, Tainsky, Salaga, and Mills (2014).

References:

Buraimo, B., & Simmons, R. (2008). Do Sports Fans Really Value Uncertainty of Outcome? Evidence from the English Premier League. International Journal of Sport Finance, 3(3), 146-155.
Havard, C.T. (2014). Glory out of reflected failure: The examination of how rivalry affects sports fans. Sport Management Review, 17, 243-253.
Rottenberg, S. S. (1956). The Baseball Players' Labor Market. Journal of Political Economy, 64, 242-258.
Xu, J., Tainsky, S., Salaga, S., & Mills, B.M. (2014). Spillover benefits to local enthusiasm: Increases in league-wide interest as a consequence of local sports team competitiveness. Journal of Economics and Business, 74, 1-10.
Xu, J., Sung, H., Tainsky, S., & Mondello, M. (Forthcoming). A Tale of Three Cities: Intra-Game Ratings in Winning, Losing, and Neutral Markets. International Journal of Sport Finance.