

# UNCERTAINTY OF OUTCOME VERSUS SPORT CLUBS' BRAND STRENGTH: AN ANALYSIS OF ATTENDANCE DEMAND IN GERMAN PROFESSIONAL FOOTBALL

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## Abstract

Introduction (research question and literature review)  
Notwithstanding the general increasing imbalance of leagues in European professional football (Pawlowski et al., 2010) attendance figures in the German first football division (1. Bundesliga) have increased continuously during the recent past. Therefore, although the uncertainty of outcome hypothesis is deeply ingrained in the economics of professional team sports literature (Downward, Dawson, & Dejonghe, 2009) it is questionable if spectators (in Germany) really care about uncertainty of outcome. In fact Czarnitzki and Stadtmann (2002) found empirical evidence that fans rather care about the reputation of clubs than about the uncertainty of outcome.

We follow this idea and try to extend their research in three dimensions: (1) First and foremost we extend their concept of clubs' reputation (which just reflects the previous seasons' on-field performance of the club) with focusing on perceived sporting success as well as brand image and an overall index of clubs' brand strength, i.e. the "differential effect that brand knowledge has on consumer response to the marketing of that brand" (Keller, 2008, 48); (2) We consider and distinguish between uncertainty of championship outcome (Janssens & Késenne, 1987) and uncertainty of outcome of the qualification for the UEFA Champions League; (3) To control for possible heterogeneity (Simmons, 1996) we distinguish (in our analysis) between the total match day attendance and the number of casual spectators (stadium attendance minus season ticket holders).

This is an ongoing research project and based on a modified version of a prior presentation.

Methodology (research design and data analysis)  
An econometric model is built with the number of spectators for every game over the season 2005/06 of the

German first football division (n=306) as dependent variable. Since there is an individual capacity constraint for each stadium and a considerable number of games were sold-out, a generalized Tobit estimator for individual cut off points is used (Green, 2003; Long, 1997).

Individual clubs' brand strength values were derived by Feldmann (2007) based on an inquiry amongst n=2,812 individuals with a general interest in football. Her theoretical model is validated applying a factor analysis and shows that the constructs perceived brand image and perceived sporting success are the key dimensions of football club's brand strength which serves as explanatory variable in our models. Furthermore, uncertainty measures serve as explanatory variables like the uncertainty index developed by Janssens and Késenne (1987) for the championship outcome, a modified measure to control for the uncertainty of outcome of the qualification for the UEFA Champions League and the Theil (1967) measure for uncertainty based on unbiased betting odds provided by betfair.com. In addition we control other factors that were previously found to influence stadium attendance.

## Results (discussion and implications/conclusions)

Since the values of the pseudo-R<sup>2</sup>-statistic (McKelvey & Zavoina, 1975) measure up to 60 percent, the estimated regression models show rather high variance explanatory power. The controlled factors (e.g. drawing potential: positive; regional income: positive, elastic demand; costs of attending a match: negative, inelastic demand) show the expected impact on stadium attendance. Furthermore, in line with Czarnitzki and Stadtmann (2002) we could detect that uncertainty plays a minor role in explaining attendance figures in the first German football league while the overall index of clubs' brand strength has a highly significant impact on stadium attendance.

While several factors that were (previously) found to influence stadium attendance are not manageable (e.g. drawing potential, regional income, travel costs) or hardly manageable (e.g. current sporting success) our findings suggest concrete management implications. Marketers of clubs have possibilities to increase stadium attendance with improving either the image of the club or the perceived sporting success of the club. The latter is possible also for rather less successful clubs by developing marketing concepts that relate the recent performance to the general possibilities of a club (e.g. St. Pauli's campaign "World Club Championship beaters" after a win against FC Bayern Munich in 2001/02).

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