What is a Star? Star Power and Demand for Professional Sport

Timothy D. DeSchriver, University of Delaware
Stephen L. Shapiro, Old Dominion University
Daniel A. Rascher, University of San Francisco

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The relationship between star power and sport consumer demand was first analyzed by Noll (1974) in his seminal work. Since Noll (1974), there have been a plethora of sport consumer demand studies that have incorporated the presence of star power in quantitative models with mixed results. A potential cause of these mixed findings may be the multiple methods in which star power has been defined. Thus, the definition and measurement of star power appears to have played a vital role in previous research. The purpose of this investigation is to review the theoretical and quantitative literature on star power and to develop recommendations for the measurement of star power going forward. By developing an improved process for measuring star power, this research has the potential to improve our understanding of a critical factor in sport consumer demand.

The primary focus of this investigation was to uncover the best method for measuring star power. In the theoretical literature, Rosen (1981) and MacDonald (1988) posited that stars drive demand by their superior talent, while Adler (1985) suggested stars drive demand by their higher popularity in comparison to other performers. Both superior talent and popularity have been used as a basis for measuring star power in quantitative sport consumer demand models, as these indicators are objective and easy to assess.

Additionally, there have been many quantitative studies that analyzed the relationship between star power and sport consumer demand; as measured by spectator attendance, team revenues, or television ratings. This work has been completed across a multitude of professional sports such as basketball (Scott, Long, & Sompii,1985; Kahn & Sherer, 1988; Burdekin & Idson,1991; Brown, Spiro, & Keenan,1991; Hausman & Leonard, 1997; Berri & Schmidt, 2006; and Jane , 2016), baseball (Scully, 1974; Rivers & DeSchriver, 2002; Mullin & Dunn, 2002), soccer (Brandes, Franck, & Nuesch, 2008; Franck & Neusch, 2012); DeSchriver, 2007; and Jewell, 2015), and cricket (Schofield, 1983). Despite the abundance of past literature, the results of this work have been mixed. Scully (1974), Noll (1974), Brandes, et al. (1991), Hausman & Leonard (1997), Mullin & Dunn (2004), Berri, et al. (2006), and DeSchriver (2007) found a significant and positive relationship between star power and sport consumer demand. Meanwhile, Hausman & Leonard (1985), Kahn & Sherer (1988), and Burdekin & Idson (1991) failed to find a significant relationship between star power and sport consumer demand. As stated by Jane (2016), these mixed results may be due to the varying types of measures that have been used to capture star power. A central theme of the previous literature is that star power has been defined and measured in many different forms.

From the review of literature it is apparent that several areas must be examined with respect to star power and its relationship to sport consumer demand. The first step in providing accurate measures for star power is to conceptualize what it is to be a star. According to Bollman (2009), a star athlete has a combination of athletic and statistical dominance. However, this combination can be difficult to quantify. While it is easy to measure on-field statistics, athletic ability can be subjective. From a theoretical perspective, Rosen (1981) defines stardom as "box office appeal, the ability to attract an audience, and generate large volumes of consumers". The outcome of stardom is relatively easy to measure, but the factors that attract an audience to a specific athlete are more challenging to assess.

Several questions need to be addressed in order to provide a more comprehensive operationalization of star power. For example, should a star player be defined by top individual statistics, or how well she/he helps the team win championships; and are these two factors mutually exclusive? Previous research used individual statistics as a proxy for star power (Franck & Nuesch, 2012; Jane, 2016). However, these studies did not include an individual's impact on team performance in the form of winning percentages and championships. The majority of previous studies

used all-star or MVP status as a proxy for star power, which encompassed both individual and team success. The challenge here is the multitude of mechanisms for determining all-star status (i.e., fan votes, media votes, player and coach votes). A possible solution is a league designation of star power such as the "Designated Player" in Major League Soccer (Jewell, 2015). Unfortunately, this type of designation is not used in most leagues.

Based on a review of past literature, we propose three concepts with respect to measuring star power and its relationship to sport consumer demand. First, a combination of on-field (i.e., all-star voting) and off-field (i.e., media mentions) popularity indicators must be incorporated into star performance measures. This process would be consistent with Rosen's (1981) definition of stardom, yet previous research have not examined these factors concurrently. Second, fan voting for awards/achievements has been used quite often to measure star power. Is fan voting, a measure of individual and team performance, or popularity? Perhaps, other measures such as social media presence, endorsements, and media mentions (Franck & Nuesch, 2012) may be more appropriate measures when the objective is to capture the concept of popularity. Additionally, jersey sales, or other forms of individual player consumption could be a method to capture popularity.

Finally, a measurement of star power must include the ability for an athlete to transcend his/her sport (King, 2014). Do non-sports fans know and/or care about the athlete; and does the star drive consumption for these prospective consumers? If so, what is the best method for measuring this phenomenon? Previous research has measured popularity through media mentions (Franck & Nuesch, 2012), but those mentions could be based on game-related articles. Star power measures that include mass popularity (i.e., social media presence, Q score rating) should be included.

In summary, the next step in the evolution of star power research is to expand our conceptualization of star power. This must include a combination of on-field performance through individual and team accolades, popularity within the context of sport, and the ability for the athlete to transcend his/her sport and become a fixture of popular culture. The current investigation highlights the need for a comprehensive assessment of star power that is currently lacking in the literature. Future investigations of star power should use these propositions, which will result in a more holistic view of the impact of start performance on consumer demand. Additionally, data reduction techniques should be used to simplify the multi-faceted nature of star power which would encompass all of these components. Ultimately, this will provide a better understanding of an individual star's ability to generate demand, and impact attendance and mediated consumption.