Who’s the Main Attraction? Examining Star Power as a Determinant of UFC Pay-Per-View Demand

Lamar Reams, Old Dominion University
Stephen Shapiro, Old Dominion University

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In recent years, annual pay-per-view (PPV) sales have reached an inflection point in the Ultimate Fighting Championship (UFC) (Wilcox, 2012). Exemplary of this trend, PPV subscriptions sold in 2012 (5.8 million), 2013 (6.6 million), and 2014 (2.2 million) to date (mmapayout.com), pale in comparison to the record breaking year of 2010 when the organization sold the most PPVs in industry history (9.2 million) (Fox, 2010). Commentators suggest the UFC’s PPV numbers have fallen due to the loss of key, transcending fighters (e.g., Georges St. Pierre, Brock Lesnar, Randy Couture) (Cruz, 2014; King, 2014; MacDonald, 2014). While anecdotal evidence suggests the star power of fighters impacts demand, there is a need for more empirical evidence of this relationship as stars may increase television ratings in sport (Hausman & Leonard, 1997), and revenues in the entertainment industry (Elberse, 2007).

Common measures to identify a star, or star power include: assessments of skills, talent and performance (Albert, 1998; Elberse, 2007; Yang & Shi, 2011), ability to transcend domain (King, 2014), number of votes received by fans or professional agencies (Berri, Schmidt & Brook, 2004; Ravid, 1999), and recipients of awards (Basuroy, Chatterjee & Ravid, 2003). In the two previous examinations of determinants of UFC PPV demand (Tainsky, Salaga & Santos, 2012; Watanabe, 2012), only limited focus was paid to star fighter impacts. The purpose of the current study is to capture the essence of stardom in the UFC through an extension of previous exploratory PPV determinants models, while providing additional focus on the impact of star power. A secondary purpose of this study is to understand additional variance in UFC PPV demand explained by the quality of the entire fight card, as the three additional fights beyond the main and co-main event were not examined in previous studies (Tainsky et al., 2012; Watanabe, 2012).

Due to the significant investment and risk associated with signing star athletes in professional team sports, previous research has included the impact of star players within demand models (Baade & Tichen, 1990; Baimbridge, Cameron, & Dawson, 1996; Hanson & Gauthier, 1989; Noll, 1974; Scully, 1974). These studies support the notion that star players have a positive impact on attendance. Additional studies have extended the literature by focusing on star players as a variable of interest. Findings showed attendance at games was positively influenced when specific star athletes were identified (Berri, Schmidt, & Brook, 2004; DeSchriver, 2007; Hausman & Leonard, 1997; Lawson, Sheehan, & Stephenson, 2008; Rivers & DeSchriver, 2002; Yang & Shi, 2011), and when players moved from one team to another (Kahane & Shmanske, 1997; Morse, Shapiro, McEvoy, & Rascher, 2008). In terms of television viewership, star players have been shown to have a positive influence on ratings for a variety of sports, including professional soccer and rugby (Baimbridge et al., 1996). These studies provide a foundation for understanding the impact of the star athlete, but none of the aforementioned examinations focused on athletes in individual sports.

There has been a shift in focus on mixed martial arts (MMA) research from consumer motives to attend live events (Andrew, Kim, O’Neal, Greenwell & James, 2009; Kim, Andrew & Greenwell, 2009; Kim, Greenwell, Andrew, Lee & Mahony, 2008) to mediated consumption. This shift is a response to PPV buys becoming a significant proportion of revenues (Ashville, 2008; Noll, 2007; Tainsky et al., 2012; Wilcox, 2014). Tainsky et al. (2012) and Watanabe (2012) have led the charge in this area finding price, holiday weekends, international event locations, number of cable television fights, number of bouts, championship fights (in varying weight classes), and strong co-main event fights as significant predictors of UFC PPV demand.

In terms of star power, only Tainsky et al. (2012) included a variable of this nature and found consumer preferences for UFC champion fighters to be significant. The impact of fighter appearances in reality series The Ultimate
Fighter (TUF) was examined in an effort to assess familiarity with participants. Results for this variable differed based on varying regression models. To that end, Tainsky et al. suggested star power is playing a considerable role in demand for individual sport events, but more investigation is necessary to support this conclusion.

Based on previous research and the focus of the current study, a multiple regression model was developed to examine the impact of star fighters on PPV variability while controlling for fighter and match characteristics, price, and time:

$$PPV = A_0 + B_1 PRICE + B_2 MONTH + B_3 FIGHTERODDS + B_4 HOLIDAY + B_5 TITLEMATCH + B_6 NONPPVFIGHTS + B_7 TITLEDEFENSE + B_8 UFCCHAMPS + B_9 TUFAPPEAR + B_{10} RANKMAIN + B_{11} RANKCARD + B_{12} TOTUFCFIGHTS + B_{13} KNOCKORSUB$$

The dependent variable for the regression model (PPV) is the number of PPV purchases for a given UFC event. The model includes the following explanatory variables: (PRICE) price for the PPV event, (MONTH) month of the event, (HOLIDAY) holiday weekend event, (FIGHTERODDS) uncertainty of outcome through fighter betting odds, (TITLEMATCH) variable indicating the main or co-main event was a title match, (NONPPVFIGHTS) number of non-PPV fights prior to a given PPV event, and (TITLEDEFENSE) total number of title defense matches occurring during a given event. Additionally, to examine the factor of interest, “star power,” six variables were included in an attempt to capture performance, familiarity, and popularity impacts. Two variables from previous research, (UFCCHAMPS) number of UFC champions in a given event and (TUFAPPEAR) appearances in TUF, were included in the model. Also, four variables: (RANKMAIN and RANKCARD) UFC fighter rankings for the main event and complete fight card, (TOTUFCFIGHTS) total number of UFC fights for match participants, and (KNOCKORSUB) total number of previous wins by knockout and/or submission were developed to further assess the complex nature of stardom in UFC.

Variables in the regression model will be collected from ufc.com, fightmatrix.com, mmapayout.com, tapology.com and sherdog.com for the years 2005-2014 (post TUF; UFC 52-UFC 181). Data collection is ongoing and is anticipated to conclude in January, 2015. The results of this study will contribute to the body of knowledge on demand for UFC PPV events by confirming previous findings and further exploring the value and impact of star fighters in an individual combat sport. Additionally, these results will provide a more holistic understanding of the impact of a complete fight card on PPV buys. Both theoretical and practical implications will be discussed.