

# SPORT MEDIA CONSUMPTION IN NCAA DIVISION I FBS: A PANEL REGRESSION MODEL USING TWITTER

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## Abstract

Several studies have explored the relationship between social media usage and sport consumption behavior (Blaszka, 2011; Madni, 2014; Park, 2014). In response, sport media research has been widely conducted to conceptualize sport media consumption behavior (Clavio, 2011; Hambrick, 2012) and develop an analytics model for identifying consumer interest in sport social media (Burk et al., 2015; Jensen et al., 2014; Pérez, 2013; Scelles et al., 2017). Notably, the modeling of consumer interest in sport social media has involved the examination of empirical evidence related to the digital demand for professional sport based on demand theory (Bird, 1982; Watanabe et al., 2015; Watanabe et al., 2016). While collegiate athletic departments have expanded their opportunities to interact with fans via social media (Clavio, 2014; Weaver, 2011), there have been relatively few attempts to conduct modeling of consumers' social media interest within the context of college sport.

Studies focusing on samples from college sport require the consideration of specific variables (e.g., student enrollment, rivalry, and college sport viewership) because college sport possesses distinct characteristics compared to professional sport (Shackelford & Greenwell, 2005). Jensen et al. (2014) conducted research that identified factors predicting the popularity of Football Bowl Subdivision (FBS) head football coaches on Twitter, utilizing factor analysis and regression modeling with the coach's follower count as an indicator of popularity. However, the studies needed help understanding shifts in consumer behavior due to limitations in data metrics available for analysis. For further analysis, Watanabe et al. (2019) examined variables related to rivalry in college football that significantly increase the volume of content posted by fans on social media using panel regressions to capture changes in sport consumer interest. However, the study did not consider variables such as on-field performance or college football scheduling events (e.g., early signing day and bowl selection day), except for those related to rivalry. Thus, the current study aims to identify various factors (i.e., social media usage, performance, scheduling events, collegiate football television viewership, student enrollment, and college football rivalry) determining sport consumer demand on Twitter (or X) for the National Collegiate Athletic Association (NCAA) Division I FBS and to explore how the findings can be applied in the management of social media accounts for NCAA FBS teams.

To achieve these purposes, the study employs an economic framework based on demand theory and adopts the modeling methodology of Bird (1982), Jewell and Molina (2005), and Watanabe et al. (2015). Specifically, a regression model will be developed by focusing on daily changes in Twitter followers, utilizing a panel dataset. FBS teams' social media data will be collected from Twitter using the Twitter application programming interface while other variables will be collected

from the NCAA's official and collegiate-reference websites. The data collection period spans six months, beginning on August 25, 2023, and ending on January 8, 2024, resulting in approximately 19,800 team-day observations. The balanced panel will be conducted using STATA 16 (StataCorp LLC, College Station, TX) for the data analysis. The findings of this study are expected to have significant implications from theoretical, empirical, and practical perspectives. Foremost, the results of the proposed study are expected to bridge the gap between consumer media behavior, social media, and economic modeling in the collegiate sport context. Furthermore, the study aims to develop a regression model using the panel dataset, providing a practical analytic framework in collegiate sport. Finally, the study is expected to provide athletic department leadership and staff with strategic methods to use social media effectively.