

Introducing and Analyzing Event Analysis Methodology for Sport Management Research

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Problem Statement While sport management scholars point to the importance of faculty and students being well versed in multiple research designs and methodologies as this knowledge will be critical to sport management's reputation within the academy (Inglis, 2007), Amis and Silk (2005) also provided evidence of the overall lack of rigor and diversity of sport management research designs.

The proposed presentation focuses on one area of sport management research that has been overlooked for some time. According to the Sport Management Program Review Council (SMPRC) (2000) developed by the North American Society for Sport Management (NASSM) and National Association for Sport and Physical Education (NASPE), sport finance and sport economics are comprised of general topic categories in the sport management discipline. But Mahony and Pitts (1998) pointed out that the content area of finance in sport is the least developed area of specialization.

The lack of research for these fields has continued in recent years. According to Han and Kane (2007), a combined only 7.4% (economics 5.7% and finance 1.7%) of presentations at NASSM conventions from 2002-2006 were related to those two categories. Particularly, finance is the least reported subject among the categories for that period. The reason of underdevelopment of sport finance may be the lack of researchers and specialists in the area, and the subsequent lack of familiarity with sport finance research methodology.

Event Analysis Methodology Event analysis measures the magnitude of the effect that an unanticipated event has on the expected profitability and risk of a portfolio of firms associated with that event (Brown & Warner, 1985). This analysis is based on the efficient markets hypothesis (Fama, 1969), which states that all publicly available investment information is incorporated into stock prices. Event analysis has become one of the most widely used methodologies in a variety of disciplines, such as finance, accounting, law, and management (Agrawal & Kamakura, 1995). Particularly in corporate finance, there are overwhelming results of event studies including merger and acquisitions, financial decisions and policies. In terms of sports related topics, this methodology has also been applied to assess the impact of some marketing-related events on a firm's profitability such events include, for example, corporate stadium naming rights deals (Cecher-Olsen, 2003; Clark & Cornwell, 2001), athlete endorsement contracts (Fizel, McNeil, & Smaby, 2008), major sports official sponsorship announcements (Cornwell, Pruitt, & Clark, 2005; Shi & Ghosh, 2006), and sale of live broadcasting rights (Gannon, Evans, & Goddard, 2006). **Procedure for an Event Analysis** Appraisal of the event's impact requires a measure of the abnormal return. The abnormal return associated with the announcement is defined as the difference between the observed price change around an announcement and the estimated normal market. The normal return means the expected return without conditioning on the event taking place.

For firm i and event date τ the abnormal return is $AR_{i\tau} = R_{i\tau} - E(R_{i\tau} | X_{i\tau})$ are the abnormal, actual, and normal returns respectively for time period τ . $X_{i\tau}$ is the conditioning information for the normal return model. Measuring and identifying the significance of abnormal return is used to judge the economic worth of those marketing-related events. Given the selection of a normal performance model, the estimation window needs to be defined and the most common choice is using the period prior to the event window for the estimation window because of addressing effects of possible leakages and unseen information dissemination.

Two analyses are usually conducted to identify whether the average abnormal return is different from zero on the event day or within a given event window: (1) the standard cross-sectional z test (SCR z) and (2) the rank z test. The weights in calculating the adjusted z are the inverse of the standard deviation of the raw returns. Therefore, stocks with lower variances in prices are given greater weight (Fizel et al, 2008). Also non-parametric rank test is conducted since rank z test is more powerful as highly non-normal distributions that characterize daily stock returns (Corrado, 1989).

Sample data analysis using the announcements of corporate philanthropic giving to non-profit organization operated by major professional organizations showed this event analysis empirically applicable. Implications In the field of sport management, event analysis can be applied in various ways. For marketing research, this method provides a quantitative means to evaluate the value created by marketing-related programs (Lei & Ghosh, 2006). This is meaningful analysis for strategic management research. Event analysis offers information for managers to assess the ramifications of their decision on the firm's profitability,

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since market's reactions to those decisions serve as feedback to investor's assessments. Thus research applying mainstream finance research methods to sport properties and its economic impact would be a great expansion of the sport management literature.