Sponsorship and shareholder value: A re-examination and extension

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ABSTRACT

A stream of studies investigates shareholder wealth effects of marketing investments into sport sponsorship properties. While research generally upholds a positive relationship between sponsorship agreements and shareholder wealth, the relationship remains unclear for several sponsorship categories. With more specific attention to research design issues, this paper replicates and extends prior research in two of these areas: official product and Olympic sponsorship announcements. This paper notes that inclusion of observations with potentially confounding events materially affects results reported by the original authors. The first study identifies a significant positive shareholder wealth effect associated with initial official product sponsorship announcement but not for renewal of such announcements. The second study resolves conflicting views from prior research regarding Olympic sponsorships. Although a negative overall relationship exists for sponsors of the 1996 Atlanta Olympics, the market's negative view of costly, top-tier global sponsorships largely drives this result.

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1. Introduction

Over the past two decades, sponsorship has become a centerpiece of corporate and brand communications. In recent years, the pace of sponsorship-linked marketing expenditures has consistently outstripped that of traditional advertising, rising to an estimated $42 billion worldwide in 2008 (IEG, 2008). The growth of sponsorship is also readily apparent in the development of supporting infrastructure and policies surrounding corporate involvement in sponsorship activities (Cornwall, 2008). Sponsors now regularly employ outside agencies to assist them in areas such as proposal management, measurement, and hospitality. A recent study of Fortune 500 companies websites found one-third of these firms have made their sponsorship policy available on the Internet (Cunningham, Cornwell, & Coote, 2009). For many firms, the transformation of marketing communications through major sponsorship programs means key changes in a variety of aspects of traditional advertising and promotions, including content, media choice and placement, and the overall pattern of marketing spending (Cornwell, Weeks, & Roy, 2005). Thus, corporate sponsorship investments represent decidedly strategic managerial decisions that typically exert great influence upon many aspects of the firm's broader marketing strategy.

The dramatic growth of this medium has drawn increased interest from academic researchers, resulting in a considerable literature base in recent years. Within the context of the marketing-finance interface, a number of studies assess the impact of various categories of sponsorship announcements upon changes in shareholder wealth. Overall, marketing studies tend to confirm that investors generally hold a favorable view of these investments. The evidence relating to specific types of sponsorship announcements, however, remains less than clear. For instance, Cornwell et al. (2005) are unable to identify a significant positive abnormal return for firms announcing official sponsorship status for five major U.S. sport leagues, leading them to support their hypotheses using longer event windows. Whereas Miyazaki and Morgan (2001) interpret their results as suggesting a positive financial effect for U.S. listed firms announcing sponsorship for the 1996 Atlanta Olympics, Farrel and Frame (1997) reach the opposite conclusion in their study of sponsors of the very same event. In conflict with the Clark, Cornwell, and Pruitt (2002) study of stadia naming rights announcements, Leeds, Leeds, and Pistolet (2007)) conclude that the purchase of naming rights had little significant impact on the short-term or long-term value of the companies that bought them.

Given that the phenomena and announcement dates examined in these studies were identified using publicly available secondary data sources, these conflicting findings suggest a lack of consistency across studies in terms of research design, statistical analysis and interpretation of study results.

As the usefulness of the event study technique depends heavily upon a set of rather strong assumptions (Brown & Warner, 1980, 1985), its imprecise application may bias empirical results and

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subsequent conclusions (McWilliams & Siegel, 1997). Thus, inappropriate on inconsistent technique may unjustifiably support or discount some theories. This paper re-examines sponsorship hypotheses from three published studies to see if the research designs that the authors employed materially affected the conclusions they drew. These studies are: Cornwell et al.'s (2005) study of official major league sponsorship announcements; Miyazaki and Morgan's (2001) and Farrell and Frame's (1997) studies of 1996 Olympic sponsorships. In addition, for the official product sponsorship study, extending the sample frame and identifying additional announcements for each event type subsequent to the period investigated in the original study increase the ability to identify significant effects. The Olympic study uses additional analysis not carried out by either of the prior research teams to identify the basis for the negative returns.

2. Event study methodology

Used extensively in the finance and accounting literature, the event study method measures the effect of an unanticipated event on stock prices. The standard approach uses a regression model to predict expected returns for the firm based upon some period preceding the event. Abnormal returns (i.e., residuals) are the difference between the returns observed and those that the regression model predicts. These abnormal returns are then aggregated across firms and over time; statistical tests determine whether the abnormal returns are significant in relation to some market model, and if so, for how long (Henderson, 1990). Use of event study methodology precludes the need to analyze accounting-based measures of profit, which critics say are often not very good indicators of the true performance of firms. However, stock prices theoretically reflect the true value of firms because they presumably reflect the discounted value of all future cash flows and incorporate all relevant information.

Given that this method increasingly assesses the impact of managerial decision-making in marketing and management, considerations of correct implementation, clear reporting of results and appropriate interpretation of results are important. Readers can be confident that the conclusions from an event study are valid only if (a) they know that the researcher has truly identified abnormal returns associated with the event, and; (b) the conventional statistics used to test significance do not depart from their theoretical unit normal distribution under the null hypothesis (Campbell & Wasley, 1993). That is, the analysis must be consistent with both the theoretical and statistical assumptions underlying the technique.

3. Theoretical assumptions and research design issues

From a theoretical perspective, inference based on event study methodology relies upon the three key assumptions: markets are efficient, the event was unanticipated, and no confounding effects occurred during the event window (McWilliams & Siegel, 1997). Market efficiency implies that stock prices incorporate all relevant information that is available to traders. Since empirical research has routinely demonstrated that the stock market fully adjusts to the release of firm-specific information very quickly (e.g., Dann, Mayers, & Raab, 1977; Netter & Mitchell, 1989), McWilliams and Siegel (1997) suggest that this assumption is difficult to reconcile with use of a long event window. The second assumption's basis is the idea that an event becomes public through a press announcement, and that traders gain new information from the announcement. Leakages of information well in advance of a formal announcement make use of the event study methodology problematic, as determining when traders become aware of the new information is difficult. The third assumption is particularly critical—if other financially relevant events are occurring during the event window, isolating the impact of one particular event is difficult.

4. Statistical and inferential issues

Multivariate regression models, such as those used to estimate a firm's predicted returns in the event study, are subject to a number of statistical assumptions. Specifically, the models assume that the residuals: are normally distributed with a mean of zero, are not serially correlated, have a constant variance, and are not correlated with the explanatory variables. Further, in cases where different regressions may be run for different units of observation, such as firms, no correlation exists between residuals for those units. Simulated and empirical studies show that neglecting features of the data such as non-normality, autocorrelation, changes in event period variance, and heteroskedasticity can lead to test statistics that do not follow their assumed distribution. For instance, Kramer's (2001) Monte Carlo results indicate that the statistical size of commonly employed test statistics showed significant bias when the data exhibited characteristics identical to those observed in actual stock returns. Using simulated data, Hein and Westfall (2004) find that traditionally calculated p-values are biased downward dramatically when the number of firms is large and residual distribution is heavy-tailed, causing the researcher to conclude that an event is significant too frequently.

Over the years, violations of normal distribution assumptions within event studies have led to a number of key refinements to improve their performance. For instance, Corrado (1989) advocated the use of a nonparametric rank test in the face of distributional problems. More recently, however, some authors have suggested the use of various bootstrap techniques to improve the robustness of parametric test statistics under a variety of conditions common to stock return data (e.g., Liu, 1988). Use of the bootstrap involves repeated sampling from the actual data (e.g., Chou, 1998) or even the test-statistic itself (Kramer, 1998) in order to empirically estimate the true distribution of a test statistic. Hein and Westfall (2004) report the independent sampling of residual vectors from the regression model controls type I error rates in the presence of cross-sectional correlation and even in the presence of time-series dependence structures. Kramer's (2001) Monte Carlo results report lowered type I error rates using bootstrapping without any sacrifice in power. Since the bootstrap method performs better over the range of possible distributions typically found in stock price data, Hein and Westfall (2004) suggest that using the bootstrap p-values is more prudent than using traditional p-values, and at the very least, bootstrap results should supplement traditional analysis so that investigators can evaluate the robustness of their inferences.

5. Replication and extension of selected event studies

5.1. Study 1: major league sports' official sponsorship announcements

Cornwell et al.'s (2005) proposed official sports league sponsorship offers firms a number of distinct communication and cost advantages over more generalized types of sponsorship activities. The study sought to identify whether announcements of official product sponsor designation for U.S.-based major league sports would be positively associated with abnormal stock market returns, both collectively as well as for sponsors of each sports league studied. Lists of official product sponsorships for MLB, the NBA, the NHL and the PGA came from the Web pages of each league during 2003 and 2004. Searches of the Lexis-Nexis and Factiva databases identified the date of first communication for each of 53 sponsorship announcements. Following standard practices, the authors employed the Scholes–Williams standardized cross-sectional market model (Cowan, 2000; Scholes & Williams, 1977) to test for changes in stock prices around the sponsorship announcements and was estimated over event days t = −276 to −25 relative to t = 0 day of the announcement. The CRSP value-weighted index of all stocks was the stock market proxy.