

## **The Alchemy of Olympics Advertising & Sponsorship: Turning the Games into Gold**

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*This study replicates and extends the research design of Tomkovick & Yelkur (2010) by studying all publicly traded Olympics advertisers and sponsors of the Summer and Winter Olympics between 2000 and 2010 to examine if they experienced financial gains. Our results show that Olympics advertisers outperform the S&P 500 for the four-week period surrounding these games. Additionally, stock prices of the firms which both advertised and sponsored the Olympics outperformed those of firms which advertised in these Olympic telecasts but were not official Olympics sponsors. Implications for advertisers and researchers are presented as are study limitations and future research directions.*

### **INTRODUCTION**

In today's challenging global economy, the need for companies to justify the financial soundness of their marketing decisions continues to resonate at a feverish pitch. Recent studies which have investigated the relationship between advertising/sales promotion and stock returns include Chemmanur and Yan (2009), Frieder and Subrahmanyam (2005), Grullon, Kanatas, and Weston (2004), Joshi and Hanssens (2009, 2010), Lou (2009), McAlister, Srinivasan, and Kim (2007), Naik and Raman (2003), Narayanan, Desiraju, and Chintagunta (2004), Pauwels, Silva-Risso, Srinivasan, and Hanssens (2004), and Srinivasan, Pauwels, Silva-Risso, and Hanssens (2009). Findings from this research indicate that a positive relationship exists between advertising/sales promotion and enhanced firm stock price performance across a wide variety of financial environments. For a review of this literature, see Appendix 1.

As a sub-genre, several researchers have examined the links between advertising and promotion in televised sporting events such as NASCAR racing (Mahar, Paul & Stone, 2005) and the Super Bowl (Choong, Filbeck, Tompkins, and Ashman, 2003; Eastman, Iyer & Wiggernhorn, 2010; Fehle, Tsyplakov & Zdorovtsov, 2005; Kim & Morris, 2003; Tomkovick, Yelkur, Rozumalski, Hofer, & Coulombe, 2011). Findings from this research again support a positive linkage between advertising investment and enhanced stockholders equity.

With respect to research examining the financial results of firms which advertise and conduct sales promotions in conjunction with the Olympic Games, most of the research has been devoted to the realm of sports sponsorship effectiveness (Cornwell, 2008; Farrell & Frame, 1997; Sandler and Shani, 1989; Soderman and Dolles, 2008; Spais and Filis, 2006; Stipp and Schiavone, 1996; Tripodi and Hirons, 2009). As seen in Appendix 2, results from this investigation indicate that firms which sponsor the Olympics sponsorship have historically experienced positive financial results.

In contrast to the plethora of Olympics sponsorship studies, there is a paucity of research on the financial results of firms which advertise in the Olympics. One exception to this is the research of Tomkovick and Yelkur (2010), who found that firms which advertised in the Summer Olympic Games of 2000, 2004 and 2008 experienced stock price gains during and after the games.

The purpose of this paper is to replicate and extend this research by examining the financial results of firms who advertised in the Summer and Winter Olympics of 2000, 2002, 2004, 2006, 2008, and 2010. We additionally examine whether any positive financial synergy exists for firms that both sponsor and advertise in these Olympics, in comparison with those companies which simply advertise in the telecasts but are not Olympics sponsors.

Our paper is organized in the following manner. First we review the literature on Olympics and advertising. Next we discuss measuring the financial returns of advertisers and event sponsors, using stock price as a proxy. This is followed by the presentation of our hypotheses, our research methodology, and our results. Finally our paper concludes with discussion, implications for advertisers, study limitations, and suggestions for future research.

## **OLYMPICS AND ADVERTISING**

The Super Bowl, according to Nielsen, is the most-watched television program in terms of viewership. Shows such as the Golden Globes and Grammys receive high TV ratings as well. Companies such as Procter and Gamble truly believe that the Olympic Games belong in the same caliber. The global chief marketing officer for P&G refers to the games as "a world class event." (Big Ad Campaigns, 2010).

According to one study, the debut of campaigns tied to opening day of the Winter Olympic Games in 2010 was claimed to be the most concentrated period of big- budget, big-name marketing efforts in years (Big Ad Campaigns, 2010). Just like Super Bowl commercials have a heavy price tag for media time (the average price exceeds \$3 million for a 30-second commercial), commercials during the Olympics are also a major investment for advertisers. The cost of advertising during the Olympics increased by 40% in the 10 years since 1996 (The Nielsen Company, 2008) and now exceeds a half million dollars for 30 seconds of commercial time. In 2008, prime time television spots during the Games nearly doubled in price compared to 2004 (Mann, 2008). Olympics commercials have more in common with Super Bowl commercials than just the cost. They are broadcast live, they are part of a trend known as big-event television, and they attract large and highly involved television audiences (Big Ad Campaigns, 2010).

Tomkovick and Yelkur (2010) conducted a study of three Summer Olympics (2000, 2004 and 2008) and found that Olympics stocks outperformed the market during each of the games and this held for longer periods of time following the games. However, this study did not include Winter games in the analysis. Our study investigates whether such stock price gains are experienced by advertisers in the Winter games as well. Therefore, this study includes an analysis of stock price effects for advertisers in the 2000, 2004, and 2008 Summer Olympics in Athens, Sydney, and Beijing respectively, and the 2002, 2006, and 2010 Winter Olympics in Salt Lake City, Turin, and Vancouver.

## **MEASURING RETURNS FOR ADVERTISERS: STOCK PRICE AS A PROXY**

There are several studies that corroborate the claim that advertising in highly engaging sporting events such as the Super Bowl or the Olympics result in enhancement of market value of the firms (Choong et al., 2003; Fehle et al., 2005; Kim and Morris, 2003; Tomkovick and Yelkur, 2010, Tomkovick, Yelkur & Rozumalski, 2008; Tomkovick et al., 2011). The premise of these studies is that

advertising in such high-profile events enhances the image of the firms and hence the events turn into tradable events for advertisers who participate. For many reasons, stock prices are a reliable measurement to use when in evaluating financial gains of companies surrounding an event. For example, according to Rao, Ramesh, and Baradwaj (2008), a key to justifying investment in a marketing activity such as advertising is the impact such investment has on investors' cash flows and shareholders' wealth. Gupta and Lehmann (2005) and Rust, Lemon, and Zeithaml (2004) argue that the cash flows gained through a company's customer portfolio can translate into shareholder's wealth and hence stock prices are an unbiased measure of a company's valuation. Stock prices are market driven and readily available for publicly traded firms and hence not easily manipulated.

Another reason to choose stock prices is the high degree of significance they generate among the population. For example, Takeda and Yamazaki (2006) summarize the indirect linkage between advertising and firm value; they state that public attention alone could move stock prices even without any new information (Huberman and Regev, 2001; Meschke and Kim, 2010; Barbar and Odean, 2005 and Fehle et al., 2005). In addition to this, Tomkovick and Yelkur (2010) describe a concept called activation theory which posits that a company mobilizes or activates its other marketing efforts such as merchandising and distribution to activate the investment in advertising. Those firms that activate their advertising investment experience better public attention than those that don't, resulting indirectly in an increase in shareholders' wealth. Most people in the U.S. are invested in the stock market, either directly or through retirement funds; as a result, there is vital interest in the market value of firms especially when companies invest in high-profile events such as the Olympics or the Academy Awards. A final reason stock price is a good measurement of financial gains is that stock prices are a proxy for management effectiveness; if there is return on investment due to advertising via shareholder equity, management is rewarded.

## **HYPOTHESES**

We therefore measure the success of Olympics advertising by evaluating stock price performance of firms that advertise in the Olympics. We propose that Olympics Stocks will outperform the market as predicted by the Standard and Poor's 500 Index in the four-week period surrounding the games. In order to verify that this is not always the case and to corroborate that Olympics stocks don't always outperform the market, especially prior to the games, we tested for a four-week period 13 weeks prior to the six most recent Olympic Games in 2000, 2002, 2004, 2006, 2008 and 2010. Hence the following hypotheses are proposed.

*H1: Olympics stocks will outperform the S&P 500 during the four-week period of Monday before the games through to the Friday after the games.*

*H2: There will be no significant difference between the performance of the Olympic stocks and that of S&P 500 in a four-week period 13 weeks prior to the games.*

As noted earlier, the vast majority of research related to how companies leverage their Olympics advertising and sponsorship investments falls in the sponsorship category. Notable among those studies, Sandler and Shani (1989) found that official Olympic sponsors achieved significantly higher levels of TV audience awareness than non-sponsors. Stipp and Schiavone (1996) found that Olympic sponsorship positively increases a company's corporate image within the viewing public. More recently, Tripodi and Hirons (2009) found that many Olympics sponsors were getting increasingly adept at using integrated marketing communications and social media to increase sponsorship recognition in their target audience.

Given these findings and those from Tomkovick and Yelkur (2010), it is believed that a synergistic effect between sponsorship and advertising occurs for firms who are both advertisers and sponsors of the Olympic Games. Hence the following is hypothesized:

*H3: Stock performance of firms that invest in both Olympics sponsorship and television advertising is higher than those that invest in television advertising during the four-week period of Monday before the games through to the Friday after the games, but are not official Olympics sponsors.*

*H4: There will be no significant difference between the performance of firms that invest in both Olympics sponsorship and television advertising and those that invest in television advertising in a four-week period 13 weeks prior to the games.*

## METHODOLOGY

In this study, Olympic stocks, or O-stocks, refer to the stocks of those companies that advertised during the 2000 Summer (Sydney), 2002 Winter (Salt Lake City), 2004 Summer (Athens), 2006 Winter (Turin), 2008 Summer (Beijing) and 2010 Winter (Vancouver) Olympics Games. We identified these advertisers through Google searches as well as with the assistance of NBC, the television network with the broadcast rights to the games in the United States. We used free online databases to identify the parent companies of the advertisers and Yahoo! Finance to find stock prices of these companies. In total, 225 firms that advertised on television during the 2000, 2002, 2004, 2006, 2008 and 2010 Olympics broadcasts were included in this study. We only included publicly traded firms and dropped a few companies for specific reasons. For example, IAC/InterActiveCorp owns 50 brands (including match.com and Home Shopping Network that advertised in the 2008 Olympics ) across 40 countries, is an internet company, and specifically in August during the 2008 Olympics, IAC spun off several of its businesses and hence would have muddied the waters. Of the 225 companies included in the study, a breakdown by industry is provided in Table 1 below. The industry categories are patterned after the industry schema provided by Tomkovick, Yelkur and Christians (2001).

**TABLE 1**  
**NUMBER OF PUBLICLY HELD OLYMPICS ADVERTISERS BY INDUSTRY SECTOR**

Year **	Industry Category*										Tot/yr
	1	2	3	4	5	6	7	8	9	10	
2000	1	4	5	4	2	1	10	1	2	2	32
2002	2	4	5	3	2	1	11	1	2	2	33
2004	1	3	4	1	3	1	12	1	3	0	29
2006	1	5	10	5	8	1	8	3	5	1	47
2008	1	3	4	1	7	2	8	0	2	1	29
2010	2	7	13	3	8	2	15	1	3	1	55
TOTAL	8	26	41	17	30	8	64	7	17	7	225

\*Categories: 1 beverages; 2 vehicles, tires, and motor oil; 3 telecommunications, e-business, and financials; 4 food and restaurants; 5 films and entertainment; 6 apparel; 7 non-food consumer packaged goods and retail; 8 transport services; 9 pharmaceuticals and over-the-counter medication; 10 credit cards.

\*\*Olympics Host Cities: 2000 (Sydney); 2002 (Salt Lake City); 2004 (Athens); 2006 (Torino); 2008 (Beijing, China); 2010 (Vancouver, Canada)

The actual in-game period included the four-week time frame of Monday before through to the Friday after the games. The control period used was a four-week period starting on a Monday 13 weeks prior to the Monday before the start of the games. We consolidated the six years from 2000 to 2010 and the hypotheses were tested for all of the six games combined following the methodology of Tomkovick and Yelkur (2010). The comparison of the performance of the Olympic advertisers against the market was conducted by testing for differences between the actual stock prices on the Friday after the games and the predicted stock prices, as predicted by the change in the S&P 500 from the Monday before through to the Friday after the games.

In order to compare the performance of those firms that invested in sponsorship and advertising with those that used only advertising during the Olympic Games, we conducted between group comparisons during the period of the games as well as in the control period.

## RESULTS

The results supported Hypothesis 1. That is, the Olympics stocks outperformed the market by a nearly 2% in the four-week period surrounding the games for the six games studied. The results of the t-test to identify significant differences between the actual stock prices on the Friday after the games and the predicted stock prices as measured by the S&P 500 are presented in Table 2.

**TABLE 2**  
**PAIRED SAMPLES T-TEST OF STUDY SAMPLE PERIOD: 2000 TO 2010**

<b>Olympic Advertisers Mean Stock Price*</b>	<b>Olympic Advertisers Mean Predicted** Stock Price</b>	<b>Mean Difference</b>	<b>T</b>	<b>df</b>	<b>Sig.</b>
\$41.26	\$40.46	\$.80	3.474	224	0.001

\*Actual Olympic advertisers mean stock price on the Friday after the Games (2000 to 2010)

\*\* Predicted Olympic advertisers stock prices based on the S&P 500 changes between the Monday before the start of the Olympics vs. the Friday after the Olympics.

Hypothesis 1 was confirmed at the  $p=0.001$  level. Thus, the Olympics Stocks outperformed the S&P 500 for the last six Olympics (2000 to 2010), for the time period including the Monday before the Games through to the Friday after the Games.

Hypothesis 2 was also confirmed as detailed in Table 3. Results indicate that there is no significant difference ( $p=0.116$ ) between the performance of the Olympics stocks and the market in the four-week period 13 weeks prior to each of the six games (2000 to 2010), although as evidenced in Table 3, the predicted prices were slightly higher than the actual Olympic stock prices by \$0.42. Overall, the market was higher than the Olympic stocks by a little over 1% in the four week control period. Thus Hypothesis 2 was confirmed.

**TABLE 3**  
**PAIRED SAMPLES T-TEST OF CONTROL PERIOD 13 WEEKS PRIOR TO GAMES: 2000 TO 2010**

<b>Olympic Advertisers Mean Stock Price*</b>	<b>Olympic Advertisers Mean Predicted** Stock Price</b>	<b>Mean Difference</b>	<b>T</b>	<b>df</b>	<b>Sig.</b>
\$41.65	\$42.07	-\$0.42	-1.577	224	0.116

\*Actual Olympic advertisers mean stock price on the Friday after the Games (2000 to 2010)

\*\* Predicted Olympic advertisers stock prices based on the S&P 500 changes between the Monday before the start of the Olympics vs. the Friday after the Olympics.

One-way analysis of variance was used to test for group differences specified in Hypotheses 3 and 4. Results supported both Hypotheses 3 (Table 4) and 4 (Table 5). ANOVA results indicated that firms that invested in both sponsorship and advertising during the six Olympic games studied significantly ( $p=0.025$ ) outperformed firms that used only television advertising during the four-week period of the games. The mean difference in stock price between the two groups during the test period was \$4.07.

**TABLE 4**  
**ONE-ANOVA OF SPONSORS AND ADVERTISERS VERSUS ADVERTISERS ONLY IN**  
**SAMPLE PERIOD: 2000 TO 2010**

	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	2295.600	1	2295.600	5.120	0.025
Within Groups	99982.420	223	448.382		
Total	102278.020	224			

There was no significant difference ( $p=0.053$ ) in the performance of firms that invested in both sponsorship and advertising and the firms that used only television advertising in the four-week period 13 weeks prior to each of the six games (2000 to 2010). The mean difference in stock price between the two groups at the end of the 13 weeks prior to each of the six games was \$3.09, but no significant difference was found between the two groups' performance during the control period as detailed in Table 5.

**TABLE 5**  
**ONE-ANOVA OF SPONSORS AND ADVERTISERS VERSUS ADVERTISERS ONLY IN**  
**CONTROL PERIOD: 2000 TO 2010**

	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	1841.308	1	1841.308	3.774	0.053
Within Groups	108813.792	223	487.954		
Total	110655.100	224			

## DISCUSSION

The results confirm that Olympic advertisers experienced a stock price gain during the Olympic Games as opposed to the control period. During the Games, advertisers significantly outperformed the predicted stock prices at a 0.05 significance level. During the control period, the actual stock prices underperformed the predicted stock prices; however, this performance was not significant. There is evidence that advertising during the Olympics could increase shareholder equity. That is, in the period 2000-2010, if one purchased Olympics stocks the Monday prior to the games and sold them Friday after the games, they gained nearly 2 percent over the S&P 500 performance in just four weeks. This translates into billions of dollars annually for all shareholders involved.

Our findings also provide evidence of a synergistic effect for those Olympics advertisers who also sponsor these Olympic Games. The stock prices of the firms which both advertised and sponsored the Olympics outperformed the stock returns of firms which advertised in these Olympic telecasts but were not official Olympics sponsors by nearly 1%. In the control period, no such difference existed. This indicates that firms which doubled down on their promotional Olympics investments (i.e. paid money to advertise and achieve official Olympic sponsorship recognition) were financially rewarded beyond the level experienced by those firms who simply advertised in the Games.

Given these results, the larger question remains as to *why* do they occur? While theory testing remains outside the scope of this paper, there are multiple phenomena that may partially explain why Olympics advertisers and sponsors serve as modern day alchemists and consistently turn these Games into gold. Our remaining discussion will address these theoretical underpinnings.

### **Reasons Why Olympics Advertisers and Sponsors Experience Stock Price Gains**

There are four major theories linking Olympic advertising and other Olympic promotional investment to enhanced stockholders equity: Price-pressure-linkage (Barber & Odean, 2005; Takeda & Yamazaki, 2006), signaling theory (Akerof, 1970; Milgrom & Roberts, 1986), high level viewer involvement (Brush, 2008; Wakabayashi, 2008), and activation theory (Febry, 2008; Tomkovick & Yelkur, 2010). For an extensive review on this literature, see Tomkovick and Yelkur (2010).

Essentially the belief here is that media-enhanced firm notoriety signals to investors that these companies have robust marketing programs. These feelings are heightened by high levels of viewer involvement in the telecasts and the outcomes of the various Olympic events. The coup-de gras occurs when firms fully activate their advertising and sponsorship investments by converting this wide-spread and highly visible media coverage into increased merchandising and product distribution, which subsequently drives sales.

### **Reasons for the Synergistic Effect**

If the financial stakes are high for Olympics advertisers and sponsors, they are clearly higher for firms that simultaneously do both. As Bill Febry, a Miller Brewing Company marketing executive with lots of direct experience in high stakes sports sponsorship and advertising put it, “We don’t just buy ads and make sponsorship commitments and rest on our laurels. We cross-promote, we activate across the board, whenever and wherever we can with promotional point-of-purchase materials and heightened product availability at the point of sale to make sure our investments in sports sponsorship and special event advertising pay off” (Febry, 2008).

Examples of Olympic advertisers’ high level of cross-promotion efforts for recent Olympics include Heineken’s highly coordinated advertising and sales promotion of the 2000 Summer Games in Athens, (Papadimitriou & Apostolopoulou, 2009), Visa’s TV ads, digital ads, host market merchant activation programs and usage promotions for the 2008 Olympics (Woodward & Mangiantini, 2009), and AT&T’s cross-promotional tie-ins with Hilton for the 2010 Olympics (Peters, 2008).

### **Implications for Advertisers and Sponsors**

There are several implications for advertisers and sponsors of future Olympics Games. First, both the Winter and Summer Olympic Games offer opportunities for companies to successfully leverage their promotional investments. Prior to this study, there was evidence of stock price gains for only Summer Olympics advertisers.

Secondly, while Olympics advertisers are bolstering their stockholders equity, the official sponsors of the Olympics who are also advertisers in these telecasts, are doing so at a higher level. This suggests that perhaps more firms will want to engage in both types of investments in the future.

Finally, Olympics advertisers and sponsors will want to study the best practices of firms who are most successfully leveraging their Olympics advertising and sponsorship investments. Examples of firms that fall into this category include Visa, McDonalds, and Coke.

### **STUDY LIMITATIONS**

One of our study’s limitations is that it was limited to examining only publicly traded firms. While the vast majority of Olympics advertisers and sponsors are publicly traded firms, the privately-held firms may have experienced different financial results. A second limitation of our research is that we examined only short term stock results. While Tomkovick and Yelkur (2010) reported longer term positive associations for up to 6 months and beyond, further analysis is needed to determine if these same results would hold for our sample. Also, we used the Standard & Poors 500 Index as a measure of U.S. stock market performance. There are other indicators, such as the Wilshire 5000 Index, which could also be employed.

### **Suggestions for Future Research**

Notwithstanding this study and the work of Tomkovick & Yelkur (2010), relatively little research has been conducted regarding advertising during the Olympic Games. Additional research could focus on long-term effects, two and three quarters past the end of the games. Additional research could also focus on revenues and sales generated in the postgame period of the year of the games in comparison to the same time frame in the previous year. Finally, these types of studies could also be conducted in other countries to see if the TV advertisers in additional global markets experience similar positive results.

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**APPENDIX 1**  
**RECENT STUDIES WHICH HAVE INVESTIGATED THE RELATIONSHIP**  
**BETWEEN ADVERTISING/SALES PROMOTION**  
**AND STOCK RETURNS**

<b>Study</b>	<b>Sampling Frame</b>	<b>Findings</b>
Naik & Raman (2003)	Levi Strauss's Dockers brand sales volume and network advertising expenditures from 1994 to 1997.	As synergy in multimedia communication increases, advertisers should not only increase the media budget but also increase funds to the less effective activity.
Grullon, Kanatas & Weston (2004)	Firms in COMPUSTAT database during 1993-1998 that are also in the Center for Research in Security Prices (CRSP), and Trades and Quotes (TAQ).	Firms with larger advertising expenditures have a larger number of individual and institutional investors and more liquid common stock.
Narayanan, Desiraju & Chintagunta (2004)	U.S. antihistamine and antiviral prescription and sales data from April 1993 through March 2002.	The return on investment of detailing (informing targeted physicians) is greater than direct-to-consumer advertising.
Pauwels et al. (2004)	New car sales transactions from 1100 California dealerships from October 1996 through December 2001.	Investor reaction to new product introduction grows over time. New product entry yields the highest top-line, bottom-line, and stock market benefits.
Frieder & Subrahmanyam (2005)	Brand perception information obtained from a Landor Associate survey of 5000 respondents	Institutional holdings are significantly influenced by brand perception. Individual investors prefer holding stocks which are visible, brand name stocks.
McAlister, Srinivasan & Kim (2007)	644 publicly listed firms on the New York Stock Exchange between 1979 and 2001.	The study found that increases in advertising/sales and R&D/sales lower a firm's systematic risk.
Joshi & Hanssens (2009, 2010)	Monthly data for a 15 years (1991–2005) for the PC manufacturing industry and 10 years (1995-2004) for the sporting goods industry.	Advertising spending has a positive, long-term impact on own firms' market capitalization and may have a negative impact on the valuation of a competitor of comparable size.
Chemmanur & Yan (2009)	6,660 firms in 48 industries during 1980-1995 and 1996-2005.	Increased advertising is associated with increased investor attention and a larger stock return in the advertising year but a smaller stock return in the following year.
Lou (2009)	Firms listed in the COMPUSTAT database during 1974 to 2006.	Increased advertising spending is associated with individual investor buying and a simultaneous rise in stock returns which is then reversed in following years.
Srinivasan et al. (2009)	1100 California automotive dealerships sales transaction data from October 1996 to June 2002.	Investors react favorably to companies that launch pioneering innovations, that have higher perceived quality, and that are backed by substantial advertising support. more effective.

**APPENDIX 2**  
**STUDIES WHICH HAVE INVESTIGATED THE RELATIONSHIP BETWEEN**  
**SPONSORSHIPS AND STOCK RETURNS**  
**AND/OR BRAND AWARENESS**

<b>Study</b>	<b>Sampling Frame</b>	<b>Findings</b>
Sandler and Shani (1989)	210 university faculty, students, and staff at a large urban university.	Official sponsors at the 1988 Winter Olympics had a significantly higher levels of awareness overall than ambush advertisers.
Stipp and Schiavone (1996)	479 participants aged 12 and over who had watched the 1992 Summer Olympics.	Olympic sponsorship has a positive influence on Olympic viewer's attitudes toward the sponsoring company and increases a company's corporate image.
Farrell and Frame (1997)	26 corporate sponsorship announcements and changes in the sponsors publicly traded stocks.	Shareholders of sponsoring 1996 Olympic firms earned negative average unusual returns around the announcement of sponsorship agreements.
Spais and Filis (2006)	Focused on 3 grand sponsors of the 2004 Athens games.	Findings varied among the three sponsors. Overall, stock volatility, stock transaction volumes, and stock returns were affected by sponsorship announcements.
Cornwell (2008)	The 53 official product sponsors for MLB, the NBA, the NFL, the NHL, and the PGA during 2003 and 2004.	Official product sports sponsorships announcements were accompanied by increases in stock prices and shareholder wealth.
Soderman and Dolles (2008)	492 Chinese advertisements, articles, and press releases during 2001-2007.	Discovered seven means-objective combinations of sponsorship depending on lead time to Olympic games.
Tripodi and Hiron (2009)	1000 to 1500 participants involved in 4 longitudinal surveys between 1999 and 2000.	The Sydney Olympics official sponsors of were able to leverage their sponsorship and increase sponsorship recognition.