

Super Bowl Ads Linked to Firm Value Enhancement

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In this study, stock prices of publicly traded Super Bowl advertisers were compared with the S&P 500 for the years 1996-2010. Results indicated Super Bowl stocks outperformed the S&P 500 by over 1.0 percent in the test period. A performance difference was also identified across the ten trading days. No such significant results were detected in the control period. Additionally, no Super Bowl stock price performance differences were found related to ad likeability or industry category. This research indicates that advertising in the Super Bowl may be a tradable event independent of actual ad content, ad popularity, or industry category.

INTRODUCTION

For many Americans, Super Bowl Sunday is synonymous with watching football, consuming snacks and beverages in a party-like atmosphere, and being entertained by Super Bowl ads. Although the visibility and likeability of the ads continue to garner considerable attention (De Pelsmacker, Geuens and Vermeir, 2004; Elliott, 2009; Fam, 2006; Horovitz, 2002; Pavelchak, Antil, and Munch, 1988; Schoenfeld, Pariapiano, and Nguyen, 2010; Tomkovick, Yelkur and Christians, 2001), much less is known about the effectiveness of the ads or the return on their investment. Recent studies which have gone beyond anecdotal musings on the topic include brain-imaging research by neuro-scientist Marco Iacobini (Khamisi, 2006), and the correlation research of Yelkur, Tomkovick and Traczyk (2004), linking Super Bowl movie ads to U.S. Box Office success.

A new line of Super Bowl advertising effectiveness inquiry was introduced in 2003, by two research teams which explored the relationship between Super Bowl advertising investment and short-term stock

price effect (Choong, Filbeck, Tompkins, and Ashman, 2003; Kim and Morris, 2003). Choong et al. (2003) reported a modest *positive* relationship between Super Bowl ad investment and firm stock price performance over and above normal returns for the first trading day following the event. Kim and Morris (2003) found a *negative* correlation between the two on the first trading day after the telecast.

More recently, Chang, Jiang, and Kim (2009) reported that Super Bowl ad likeability was positively correlated with Super Bowl stock price enhancement. Contradicting these findings, Eastman, Iyer, and Wiggenhorn (2010) found no such impact for ad likeability on Super Bowl advertisers' stock prices and no day-after-the-game effects. They did find a positive effect for Super Bowl stock price improvement the days immediately surrounding the event. Given the high-profile nature of the topic and the discrepancy between these various research results, it is surprising that no data has been analyzed on this important topic since 2007 (see Appendix 1) and no research has attempted to comprehensively summarize the findings.

The purpose of this paper is to further examine the stock price performance of Super Bowl advertisers, but from an expanded and longitudinal vantage point. In our manuscript, we first discuss the evolution of Super Bowl advertising and the findings from Super Bowl specific ad effectiveness research. We then review research which calls for greater marketing accountability, links various marketing activities to firm performance, and links investment in high-profile media events like the Super Bowl to stockholder equity enhancement. This is followed by a presentation of our hypotheses, methodology, and research results. The paper concludes with discussion, managerial implications, study limitations and directions for future research.

Evolution of Super Bowl Advertising

When the New Orleans Saints played the Indianapolis Colts in Super Bowl XLIV, there was a lot more at stake than just the outcome of the game. With an average cost of \$3.0 million for thirty seconds of airtime (Super Bowl Ad Rates, 2009; Gorman, 2010), and millions more to produce the ads, Super Bowl advertisers and their investors are keenly interested in the financial outcome of these commercial ventures. While concern for return on advertising investment also existed in Super Bowl I, the more modest ad rate of \$42,000 for 30 seconds back then would likely have moderated this level of intense scrutiny.

More than just the ad rate has changed during the evolution of Super Bowl advertising. Other notable changes include the brilliant 1984 Apple ad (which became an instant classic on "How to introduce a new product"), the proliferation of movie ads (following hit 1996 movie, *Independence Day*), and the rush of dot.com advertisers to the game in 2000.

Who Advertises in the Super Bowl and Why?

Tomkovick et al. (2001) partitioned all Super Bowl advertisers in the 1990s into ten categories, and this schema has been continually updated ever since (Schoenfeld et al., 2010). In addition to large beverage, snack, and fast food marketers, prominent Super Bowl advertisers in recent years include major auto manufacturers, telecommunication and financial services companies, entertainment conglomerates, drug companies, package delivery companies, and consumer package goods firms. For the 2011 event, eight auto manufacturers, double the normal amount, have announced they will be running in-game Super Bowl ads. Reports out of FOX Broadcasting, which owns the 2011 broadcast rights, indicates that the advertising time slots have been sold out again (Goldman, 2010; Gorman, 2010; Parekh and Steinberg, 2010). All of these advertisers, whether they're selling cars, insurance, chips, or antacid tablets, share at least three common goals: the desire to generate sales, build brand equity, and grow stockholders equity.

Super Bowl Advertising Effectiveness: The Great Unknown

For reasons of proprietary ownership and standardized measurement challenges, there is a paucity of research documenting results related to Super Bowl advertising effectiveness and both sales revenue and brand equity enhancement. Notable exceptions to this include evidence that Super Bowl ads have contributed to the successful new product introductions of movies, autos, and erectile dysfunction drugs

(Belch and Belch, 2001; Burcum, 2005; NGP, 2007; Yelkur et al., 2004). With respect to Super Bowl advertising effectiveness and its impact on branding, Geskey (2007) concluded that research on the topic is problematic because it deals primarily with the effectiveness of the commercials (i.e., level of expense, entertainment, message clarity), rather than the effectiveness of the medium (Super Bowl).

Literature & Theory Linking Marketing Investment to Firm Performance

Repeatedly, researchers have called for higher accountability when measuring marketing outcomes (Ambler, 2003; Kumar and Shah, 2009; Lehmann, 2004; Rao and Neeraj, 2008; Srivastava and Reibstein, 2005; Srinivasan and Hanssens, 2009; Stewart, 2008). Several researchers also argue that return on marketing investment (ROMI) is incomplete without specifically connecting the return to financial performance (McAlister, Srinivasan, and Kim, 2007; Stewart, 2008). As methods have begun to emerge that provide a link between marketing activities and stock price performance, several theories have also evolved to explain why this correlation should exist.

One theory to emerge, specifically related to advertising during high-profile events like the Super Bowl, is referred to as the **higher level of viewer involvement theory** (Tomkovick and Yelkur, 2010). The Super Bowls profile a series of agentic goals whereby each participating athlete, team, and advertiser stresses self-assertion and attempted mastery over others (Solomon, 2009). Viewers of the Super Bowls on TV are essentially consumers of the events they watch. Their degree of commitment is related to their level of involvement with the competition. Typically, Super Bowl viewers are emotionally invested and otherwise highly involved with the outcome of the Super Bowl competition (Mohr, 2007; Tomkovick and Yelkur, 2010). Given that American culture values individual achievement, which is consistent with agentic goal attainment, this Super Bowl exuberance may spill over to a stronger liking for the advertisers who help bring these games into people's living rooms through their paid commercials.

Several researchers have found links between media exposure and positive stock returns by examining whether the enhanced attention could influence the price, even in the absence of new information (Barber, and Odean, 2005; Fehle, Tysplakov, and Zdorovstov, 2005; Huberman, and Regev, 2001; Meschke, 2002; Takeda, and Yamazaki, 2006). This has become known as **price-pressure linkage theory**. Another theory often debated in the literature is whether advertising stimulates sales by directly affecting behavior, or if it acts as a signal to consumers and investors of the firms' value and financial strength. For more on **signaling theory**, see Akerlof (1970), Spence (1973), Milgrom & Roberts (1986), Kaniel, Saar, & Titman (2008), and Daniel & Titman (2006). Tomkovick and Yelkur (2010) present the concept of **activation theory**, which refers to a company utilizing the positive energy of an advertising campaign as just one element of a company's overall merchandizing and product distribution efforts. Thus, the operations are mobilized to execute a comprehensive operational strategy, and the advertising is one part of this mobilization effort.

Marketing research is also beginning to emerge that links advertising directly to its impact on stock performance using cash flow metrics similar to those commonly used in the field of finance. Rao and Neeraj (2008) claim that although marketing initiatives such as advertising help firms acquire and retain customers, the link between the cash flows generated by customer purchases and shareholders' wealth is not fully understood. Building on this, the unifying goal for any publicly traded corporation is maximization of stockholders' equity, which is commonly referred to as the shareholder value principle (Brigham and Daves, 2007; Joshi and Hanssens, 2010). Related to this, Kumar and Shah (2009) commented that stock price is widely viewed as a key barometer of overall company performance. They propose that firms can quantify the expected or actual outcome of an advertising campaign using stock performance as a key metric.

Theory Specifically Linking Super Bowl Ads to Stock Price Gains

The research on Super Bowl ads and their relationship to sales and brand equity has raised the profile of this latest line of research inquiry: namely the purported relationship between Super Bowl ad investment and stockholders' equity. Appendix 1 highlights the findings on studies which have examined Super Bowl advertising effectiveness from both a revenue and stock price perspective.

With respect to stock prices, Campbell & Hughson (2007) reported that companies announcing the purchase of advertising time during the Super Bowl may get a slight boost in stock prices at the time of the announcement. Chang et al. (2009) additionally reported that ad likeability was positively associated with stock price enhancement. Firms which scored higher in *USA Today's* Ad Meter Poll experienced greater stock price gains than did firms with lower ad likeability scores.

Controlling for ad likeability, Choong et al. (2003) reported that Super Bowl advertisers experienced, on average, a 0.16 percent positive excess return over market performance the day after the game. Kim and Morris (2003) reported that 22 of 35 Super Bowl advertisers studied experienced stock price declines the day after the Super Bowl. Although the findings of Choong et al. (2003) and Kim & Morris (2003) contradict each other, the Choong et al. (2003) argument is more convincing since they studied ten years of data versus only three for Kim & Morris (2003). Additionally, the Choong et al. (2003) finding was corroborated by Fehle et al. (2005) and Eastman et al. (2010).

This leads to the first hypothesis, where we posit that Super Bowl stocks will outperform the market, as measured by Standard and Poor's 500 Index, for the discrete time surrounding the event.

H₁: Super Bowl Stocks will outperform the S&P 500 during the period of Monday before through to Friday after the game.

An argument could be made that firms which invest in Super Bowl ads routinely outperform the market all year long. Tomkovick and Yelkur (2010) controlled for this type of effect in their study of Olympic advertisers and subsequent stock price gains. In that study, these researchers examined the performance the stock prices of Olympic advertisers both during the Olympic test period and three months before the Olympics in a control period. They found no significant differences in the Olympic stocks versus the S&P 500 for the control period and they found a significant difference in favor of the Olympic stocks in the test period.

Patterned after that research design, we also believe a control period is worthy of investigation. Based on our supposition that Super Bowl stocks will not outperform the stock market in a control period. The following is hypothesized:

H₂: There will be no difference in the performance of Super Bowl stocks versus the S&P 500 in the non-Super Bowl time control periods (i.e., three months earlier for each of the study years 1996-2010).

When considering the performance of Super Bowl stocks, investors and others would likely be interested in knowing if any meaningful patterns exist within the daily stock price fluctuations. More specifically, investors would like to know if there is a significant difference between daily Super Bowl stock price changes relative to overall market performance. Given the ritualistic ramping up and subsequent dampening down of media hype surrounding the Super Bowl, it is likely that this variability in coverage may have some effect on the stock price of firms advertising in the game. Based on this supposition we hypothesize the following:

H₃: There is a significant difference between daily stock price changes of Super Bowl Stocks relative to S&P 500 performance over the ten-day period surrounding the Super Bowl.

As previously noted, the studies linking Super Bowl ad likeability to subsequent short-term stock price enhancement have shown mixed results. Chang et al (2009) reported that ad likeability was positively correlated with stock price improvement and Eastman et al. (2010) found no such effects.

Curious about this discrepancy, we contacted the president of one large major consumer packaged goods food company that had finished in the bottom decile for Super Bowl ad likeability during one year of our study period. After contact was established, we asked him if he and/or his company were concerned that their poor ad likeability score might negatively impact their subsequent sales and stock price performance. He commented that not only were they not concerned about their ad likeability score, their stock price went up over 6.5 percent in the week following the game and that their sales were positive as well.

Given this anecdotal account and the mixed results on prior ad likeability studies, we posit the following:

H₄: There will be no correlation between Super Bowl ad likeability and firm stock price performance during the test period.

Regarding the industry categorization, Tomkovick et al. (2001) sorted 1990s Super Bowl ads into ten categories. Applying this same schematic for our period of study, (i.e., 1996-2010), we noted that, except for medications and credit cards, the number of ads in each category has been relatively constant across this 15-year time period (see Table 1). Given the stability of this cross-industry participation, it is likely that the stock price enhancement effects of these ad investments may also be fairly constant. Based on this supposition we hypothesize the following:

H5: There will be no difference in the stock price performance of Super Bowl advertisers by category over the test period.

TABLE 1
NUMBER OF ADS PER PRODUCT CATEGORY FOR ADVERTISEMENTS AIRED
DURING THE SUPER BOWL (1996-2010)

Year	Category										Total
	1	2	3	4	5	6	7	8	9	10	
1996	10	10	2	8	2	2	5	0	3	4	46
1997	14	5	6	4	8	2	6	1	5	1	52
1998	15	6	9	5	7	2	0	4	0	4	52
1999	11	6	11	4	9	2	2	2	1	4	52
2000	12	4	23	1	7	0	0	1	0	2	50
2001	11	3	16	4	7	1	1	2	1	3	49
2002	12	3	12	6	11	2	0	1	1	2	50
2003	16	4	8	3	12	3	2	1	0	3	52
2004	16	8	12	1	9	1	4	1	3	2	57
2005	13	5	8	8	10	0	6	1	1	3	55
2006	13	6	14	4	11	0	6	2	1	1	58
2007	15	7	14	6	6	2	2	2	2	0	56
2008	16	8	12	5	7	2	2	1	0	0	53
2009	14	7	12	6	9	0	1	0	0	0	49
2010	12	10	17	11	6	3	3	0	0	0	62
Total	200	92	176	76	121	22	40	19	18	29	793

Categories: 1, beverages; 2, vehicles, tires, and motor oil; 3, telecommunications, financial services, and e-business; 4, food and restaurants; 5, movies and entertainment; 6, apparel; 7, non-food consumer packaged goods and retail; 8, transport services and lodging; 9, medications and analgesics; 10, credit cards.

METHODOLOGY

In this study, we defined “Super Bowl Stocks” (SB Stocks) as stocks of those companies that had in-game advertisements during the Super Bowl during our period of study (i.e., 1996-2010). We identified these SB Stocks using *USA Today's* Ad Meter to see which brands were advertised within the actual Super Bowl telecast. We used internet sources to verify the parent companies of the brands that were advertised each year. Stock prices of these parent companies were found using Yahoo!Finance. Only companies that were publicly held and traded on U.S. stock exchanges were used in the study.

We patterned our research design after the Event Study Methodology (ESM) used by Kinney and Bell (2003), Choong et al (2003), and Kim and Morris (2003), and customized it to our exclusive period of interest. Kinney and Bell (2003) for example, factored in the seasonality of multiple sporting events; in our study we looked exclusively at stock prices of companies that advertised in the Super Bowl, an event that occurs close to the same time period every year. We identified changes in SB stock prices and

compared them to the S&P 500 performance for the specified time period of the Monday before the game through the Friday after the game.

We selected the opening stock price of the Monday before the game as our starting point because the media does not typically start publicizing Super Bowl advertisers until the week before the game. We selected the closing price of the Friday after the game as our end point because the media buzz on the ads and the companies dramatically trails off by the end of that week. Thus, the Monday before to the Friday after the game provides a clear and discrete time period for our designated comparisons. To test Hypothesis 1, we then examined the performance of the aggregate portfolio of SB Stocks relative to the performance of the S&P 500 during this same ten-day period for 1996-2010.

With regards to our control period and the testing of Hypothesis 2, we patterned our control period after the research work of Tomkovick and Yelkur (2010). In their work, their period of interest was the 20 days surrounding the Olympic games. Thus they used a control period of 20 consecutive trading days starting 3 months prior to their test period. In that same fashion, given that our test period of interest was the 10 days surrounding each Super Bowl (for 1996-2010), we used a control period of 10 consecutive trading days starting 3 months prior to our test period.

To test Hypothesis 3, we compared the daily opening-to-closing results for each of the ten days of interest (i.e., the Monday before the Super Bowl to the Friday after the Super Bowl), for each year of our study period (i.e., 1996-2010).

To test Hypothesis 4, we used the ad likeability scores provided by *USA Today*. These ad likeability scores are reported annually the day after the Super Bowl. A correlation test was then run to determine whether ad likeability had any impact on Super Bowl stock price performance.

To test Hypothesis 5, we used the industry categorization schema developed by Tomkovick and Yelkur (2001) as reported in Schoenfeld et al. (2010). In this schema, all Super Bowl advertisers are put into one of ten categories (see Table 1.) These categories were then compared with how Super Bowl stocks performed during the test period to determine whether advertisers in any one particular category outperformed advertisers in any other category.

RESULTS

We tested Hypothesis 1 using a paired samples t-test. In that test, we compared the *actual change* in SB Stock prices between the Monday before and the Friday after the game with the *predicted change* in SB Stock prices. Predictions were based off the S&P 500 performance. As an example of a predicted SB Stock price, if the S&P 500 increased by 3 percent in a given year for this ten-day time period, then each SB stock for that year was also predicted to increase by 3 percent. The *actual value* of SB Stocks exceeded their *predicted value* by a little over 1.0 percent (precisely by 1.0148 percent). Our t-test showed significance at the $p = .034$ level. Results of the t-test are presented in Table 1. Figures 1 and 2 provide a visual comparison of these results over time.

TABLE 2
PAIRED SAMPLES t-TEST FOR SB STOCKS vs. S&P 500 IN TEST PERIOD

Mean Super Bowl Stock Price*	Mean Predicted** Super Bowl Stock Price	Mean Difference	T	Sig.
\$51.1679	\$50.6211	\$0.41173	2.129	0.034

* Actual Super Bowl mean stock price on the Friday after the game (1996-2010)

** Predicted Super Bowl mean stock price based on the S&P 500 change between the Monday before vs. the Friday after the game (1996-2010).

FIGURE 1
SUPER BOWL STOCKS VS. S&P 500 MONDAY BEFORE TO FRIDAY AFTER THE EVENT

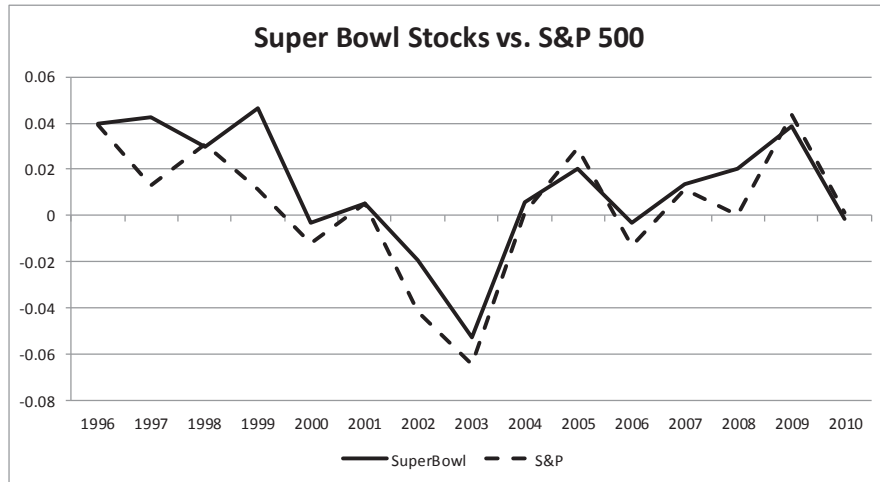
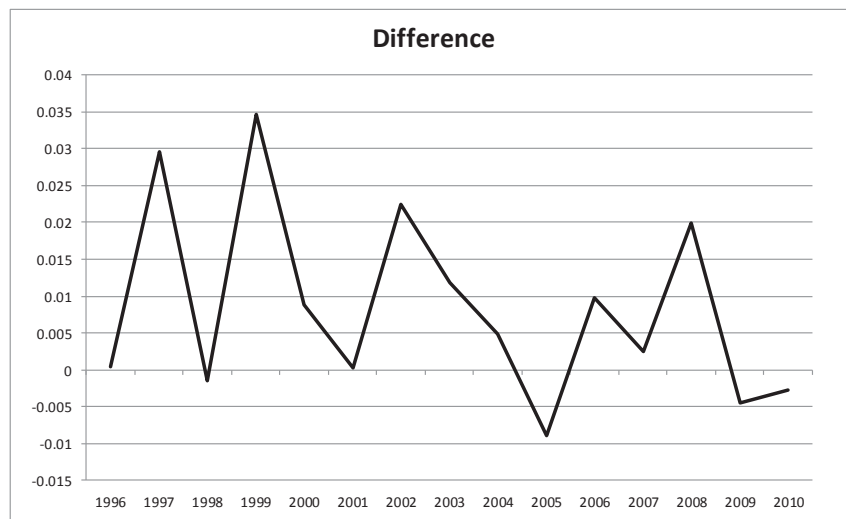


FIGURE 2
PERFORMANCE DIFFERENCE OF SUPER BOWL STOCKS VS. S&P 500 MONDAY BEFORE TO FRIDAY AFTER EVENT



As depicted in Figure 2, SB Stocks outperformed the S&P 500 in 11 of the 15 years studied. When SB Stocks outperformed the S&P 500, they did so by as much as 3.5 percent, whereas when they underperformed the S&P 500, they did so by a mere 0.9 percent. Additionally, there were 4 years among the 15 studied (2000, 2002, 2003, 2006) in which the S&P 500 declined in value over our 10-day period of interest. In each one of these 4 years, SB Stocks exhibited superior performance over the S&P 500.

We tested Hypothesis 2 in the same manner, using a paired samples t-test. We compared the *actual* change in SB stock prices versus the *predicted* change for the ten-day period beginning exactly three months prior to the Monday before each Super Bowl of interest. Results were insignificant ($t=.028$, $significance=.978$).

In order to test Hypothesis 3, a one-way analysis of variance was performed on SB stock price changes for each day surrounding the event. That is, the change in SB stock prices, from 1996-2010, was computed for each of the ten days (i.e., the Monday before the game through the Friday after the game). The difference in stock prices on each of the ten days formed the ten groups included in the ANOVA. The results of the ANOVA are presented in Table 3. Results indicate that there is a significant difference between the actual and predicted values of SB Stocks between the ten days, at a p-value of 0.021. Further post hoc tests and individual t-tests on actual versus predicted values for each of the ten days indicate that SB stock prices experienced a significant gain on the Wednesday after the game ($p = 0.023$), as seen in Table 4.

TABLE 3
ANOVA ON DAILY SB STOCK PRICE CHANGES*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	94.627	9	10.514	2.168	.021
Within Groups	12850.029	2650	4.849		
Total	12944.656	2659			

* For the daily stock price changes starting the Monday before through to the Friday after the game (1996-2010).

In testing hypothesis 4, the results of the Pearson correlation test between Super Bowl stock prices and ad likeability indicated that there was no significant relationship between how well the ads were liked and how well the stock prices of these advertisers did (Pearson Correlation=-.032; significance=.447)

Regarding hypothesis 5, an ANOVA test was run to determine if the Super Bowl stock price performance varied based on industry. Results were insignificant ($F=1.164$, significance=.319), indicating that industry category had no effect on how Super Bowl stock prices performed during the test period.

TABLE 4
DAILY SUPER BOWL STOCK PRICE COMPARISONS: ACTUAL vs. PREDICTED*

	Mean Super Bowl Stock Price (\$)	Mean Predicted Super Bowl Stock Price (\$)	Mean Difference (\$)
Monday before SB	50.5041	50.4786	.025526
Tuesday before SB	50.9415	50.6940	.247519
Wednesday before SB	50.9324	50.8801	.052293
Thursday before SB	51.1915	51.0225	.169060
Friday before SB	50.9762	51.0427	-.066504
Monday after SB	50.6894	50.9717	-.282293
Tuesday after SB	50.5680	50.6901	-.122105
Wednesday after SB	51.0503	50.6386	.411729**
Thursday after SB	51.2704	51.1236	.146842
Friday after SB	51.1679	51.2088	-.040977

* Predicted Super Bowl stock prices based S&P 500 market performance

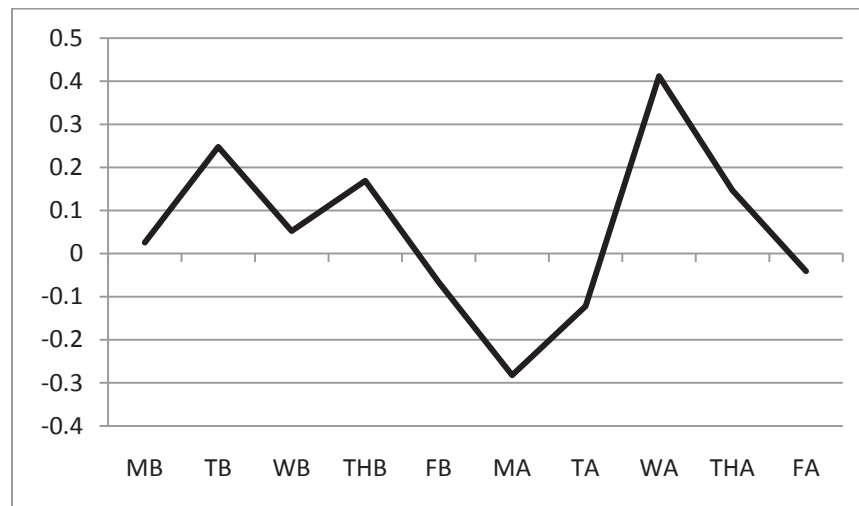
** $p = .03$

DISCUSSION

Advertising in the Super Bowl may very well be a tradable event. Our results indicate that SB Stocks regularly outperform the stock market in the two-week period between the Monday before and the Friday after the game. In the aggregate, companies that advertise in the Super Bowl are rewarded in the time period immediately connected to the event. As predicted, Super Bowl Stocks did not outperform the S&P 500 during the control period.

Our results also indicate there was a significant difference between the daily stock price changes of Super Bowl Stocks relative to the Standard and Poor's 500 Index in the period surrounding the Super Bowl. As illustrated in Figure 3, Super Bowl stock prices, relative to the S&P, peak on the Wednesday after the game. One possible explanation for this finding is the media hype, which takes place on the Monday and Tuesday after the game, may cause increased market activity for SB Stocks on the Wednesday after the game. The more modest performance of SB Stocks versus the S&P 500 on the Thursday after the game may reflect the diminishing media attention received by the companies that invested in the game.

FIGURE 3
DAILY MEAN DIFFERENCE (\$) BETWEEN ACTUAL VS. PREDICTED SUPER BOWL STOCKS (1996-2010)



MB = Monday before each Super Bowl

FA = Friday after each Super Bowl

Thus, a strong correlation is shown to exist between Super Bowl advertising and positive stock price performance. As discussed in the introduction for this paper, many theories have attempted to answer the question of why any type of advertising could affect stock price. As companies begin to place more and more emphasis on contribution to firm value, it is results that matter most. Our research highlights such results, showing the impact of advertising during the Super Bowl from 1996 to 2010.

Managerial Implications

Our findings have implications for marketing managers, the investment community, and for firms considering advertising in future Super Bowls.

Implications for Marketing Managers

In response to calls from the marketing literature, one tangential goal of our research is to help to bridge the gap between marketing and finance by promoting a common language when discussing

advertising linkages to firm value enhancement. Kumar and Shah (2009) claim that, “This is important because more often than not, the performance metrics used by marketing (e.g., advertisement recall, brand awareness, customer satisfaction scores) are not well appreciated by the chief financial officer (CFO), who typically wants the performance impact to translate into the financial language that he or she understands” (p. 134). Given that maximizing shareholder value is a unifying goal - understood by finance, marketing executives, and CEO’s alike - the implication of advertising during the Super Bowl and producing positive stock price performance offers a justification for the expense.

While becoming more common, not all large firms have a chief marketing officer (CMO). A recent study of 167 Fortune 1000 companies found that only 40 percent of the sample had a CMO on the top executive team, compared to 97 percent of those companies having a CFO (Nath and Mahajan, 2008). Where a CMO is present, which is the case for most Super Bowl advertisers, we recommend they employ finance professionals who are tasked with examining the effects of major advertisements on cash flow and firm value. Given that the decision to advertise during the Super Bowl is such a high-risk/high-reward scenario, it is essential to be prepared to justify the expense and monitor the results of the investment.

Marketing executives will be judged based on how their company performs relative to their actions. The ultimate measure of a company’s true performance is its stock performance. Maximizing shareholders’ wealth is a common goal of all top executives and should, therefore, be a key focal point for the CMO. Kumar and Shah (2009) claim that it should be possible for a marketing executive to actually influence the stock price of the firm. Perhaps with greater focus on the impact to firm value, the average CMO’s tenure might not be so short relative to other company executives (Nath and Mahajan, 2008). Of all top-level executives, the CMO’s tenure, on average, is just 23 months (Kumar and Shah, 2009; McGirt, 2007; Welch, 2004). Executives willing to risk the expense of a Super Bowl ad campaign and other high-profile marketing investments should be rewarded when this is linked to positive stock price performance.

Implications for the Investment Community

Wall Street investors are constantly seeking arbitrage opportunities in the stock market. These opportunities are often found through the analysis of stock performance. The investment community may be interested in our finding that SB Stocks outperformed the market by an average of 1.0 percent over our period of study. This 1.0 percent gain is an arbitrage opportunity that may be used by investors to gauge what investments would be most profitable.

Implications for Firms Considering Advertising in the Super Bowl

When firms advertise in special events, sponsor special events, or do both, they do not simply make these purchases and then assume these discrete investments will produce positive results (Cornwell, 2008; Tomkovick and Yelkur, 2010). Rather, they attempt to fully activate their advertising and sponsorship investments by converting this heightened media attention into increased merchandising and product distribution. Activation includes increased distribution, extensive point of purchase/point of sale presence, incentivized sales force, and online leveraging surrounding the game.

In addition to activation of the sales and distribution functions, there are other possible explanations for why Super Bowl advertising is linked to enhanced stock price performance. Media exposure raises the profile of Super Bowl companies with Wall Street investors, which may make their stocks more attractive investment options. Also, advertising in the Super Bowl projects confidence on the part of the companies that they are willing to invest their advertising dollars in this mega event.

This research highlights the very real possibility that the investment in Super Bowl advertising can be financially beneficial to many firms. Regardless of the content of the advertisements, the Super Bowl portfolio of stocks has been outperforming the market on a consistent basis. This has significant implications for individual companies with respect to their short-term market capitalization. To illustrate this point, for the last 15 years, the stock value of Super Bowl advertisers has increased by \$10 - \$20 billion annually, over and above market performance, for this two-week period. This is potentially good news to companies who are considering advertising during future Super Bowls and may be great news to

the networks that own the rights to the future telecasts. For networks, this is a potential selling tool to attract companies considering a presence in the Super Bowl.

CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Our study answers some of the questions that relate to the value of advertising in the Super Bowl. Return on Super Bowl advertising investment has always been of interest to companies and investors because of the costly media time associated with the event. We used stock prices of Super Bowl advertisers as a cue for financial success. Our results are of interest to various stakeholders as detailed in previous sections and pique interest for further investigation into this topic.

However, this study is not without limitations. A correlation has been shown between advertising in the Super Bowl and positive stock price performance. Future studies may examine both the correlative and causal relationships contributing to this outcome. There is an extensive amount of marketing literature exploring the indirect effects such advertising has on share price. To the best of our knowledge, there is relatively little research that takes the perspective of finance in linking an individual advertisement or ad campaign to its direct impact on firm value. For studies that have begun to explore more direct links we recommend Joshi and Hanssens (2010), Kumar and Shah (2009), and Rao and Neeraj (2008).

Another limitation is that we made stock price comparisons for only a two-week time period. Our results show short-term gains for companies that invest in the Super Bowl, but we have no evidence this is sustained in the long term, or even if the effects of the event on stock prices can be isolated beyond the week after the game. A positive relationship could exist for a longer period of time and needs to be thoroughly explored. Also, we used the Standard & Poor's 500 Index as an indicator of U.S. stock market performance. There are other indicators that are more robust, such as the Wilshire 5000 Index, which could be used instead.

In conclusion, our study shows that from 1996 – 2010, Super Bowl stocks outperformed the S&P 500 by over 1 percent for the two-week period surrounding the Super Bowl. Whether it is Super Bowl advertising or some other major marketing strategy, marketers should be encouraged to explore more financial links to their marketing investments on an on-going basis.

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APPENDIX 1
HIGHLIGHTS FROM THE SUPER BOWL STUDIES WHICH HAVE INVESTIGATED
ADVERTISING EFFECTIVENESS

Sample Studied	Dependent/Predictor Variable	Researchers	Findings
SB advertisers with available market data 1990-1999	Stock price	Choong et al. 2003	SB ads linked to above average stock price returns on the first trading day after the SB
Publicly traded SB advertisers 1998-2000	Stock price	Kim & Morris 2003	SB ads linked to abnormal negative stock price returns on the first trading day after the SB
Movies with \$35 million or more production budgets released within seven months of the SB 1998-2001	US Box Office Revenue	Yelkur et al. 2004	SB promoted movies showed a 36% revenue increase over movies not promoted in the SB in the same time period
Advertisers from 19 SB broadcasts, 1969-2001	Stock price	Fehle, Tsyplakov, and Zdorovtsov (2005)	SB ads linked to abnormal positive stock price returns, persisting post-event for 20 days.
Publicly traded SB advertisers 1989-2003	Stock price	Campbell and Hughson 2007	New SB advertisers experience stock price gains over perennial SB advertisers
529 SB advertisements 1989-2005	Stock price	Chang, Jiang, and Kim (2009)	SB ad likeability correlated to stock price gains after SB broadcast
24 SB advertisers from 2007	Stock price	Eastman, Iyer, and Wiggenhorn (2010)	No difference on SB stock prices the day after the game, or for ad likeability. Positive difference for SB stock prices the week surrounding the event.