

Soccer Match Results and Sponsor Stock Returns - An Analysis Based on Behavioral Economics Perspective

Zhenghao Ren

Department of Public Administration, Xiamen University, Xiamen, 361005, China

13720202205215@stu.xmu.edu.cn

Abstract. Using the event study method, the impact of Chinese Super League match results on title sponsors' share prices was empirically analysed from a behavioral economics perspective. The main section considers the impact of variables such as win-loss relationship, home and away factors, Friday's important match day and the last five rounds on the A-share market and the H-share market respectively, and draws conclusions. The article aims to explore the possible patterns of fluctuations in the market capitalization and share price of sponsors following sponsorship of football clubs in the context of gold-dollar football, influenced by the results of matches. Can the outcome of a Chinese Super League match affect the value of a sponsor's shares? If so, what kind of investor sentiment is reflected behind the fluctuations in share price? What can be done to improve the effectiveness of corporate sponsorship? To this end, this paper analyses the issue from the perspective of behavioral economics, combined with the event study method, in order to provide theoretical references for the study of Chinese football sponsorship.

Keywords: Behavioural Economics; Share price; Sponsorship; Chinese Super League; Event Study.

1. Introduction

Nowadays, commercial sponsorship has become an important part of the professional soccer ecology, and soccer clubs have broadened their income channels and obtained more working capital by accepting sponsorship. At the same time, sponsors enhance their brand image and market value by sponsoring soccer clubs, thus reaching a "win-win" situation. The stock market is a barometer of economic development and can be used to examine the rise and fall of sponsorship market value, reflecting the direction and extent of sponsorship share prices influenced by the results of soccer matches and thus observing the sponsorship effect under different conditions.

The history of sports sponsorship can be traced back to the 19th century, and sports sponsorship entered a rapid development stage after the 1970s. The selection of research content varies for different forms of competitions. The first category is the study of sponsors of large sporting events (e.g., the Olympics or the soccer World Cup), and there is no shortage of researchers on large event sponsorships in China, such as Li Gang and Fu Lei [1-5].

The second category is the research on sports league club sponsors. Sports leagues are different from major sports events in that they have scattered game days and large time spans, and the impact of sponsorship announcement dates on sponsorship share prices is not as significant as that of major events [6]. Therefore, the impact of game results on sponsors' market value has become the main research of various scholars. Reneberg analyzed the share prices of the main sponsors of 17 EPL clubs in the 1995/96-98/99 seasons and found that team wins had a positive effect on sponsors, while draws and losses had an opposite effect [7]. Stadtmann studied the share prices of Borussia Dortmund sponsors in the 2000/01-02/03 seasons, filtering the match levels based on the win, draw and loss as variables, and found that the results of both home league and European matches can affect sponsor share prices [8]. Thereafter, Zuber added the analysis of unexpected results and found that unexpected results in the English Premier League had no significant effect on sponsor share prices [9]. Scholtens integrated the variables and studied eight clubs in five countries simultaneously, concluding that winning share prices were significantly higher, while losing was the opposite, and that European matches had a stronger impact than the home league, confirming the findings of previous studies [10]. Using an alternative approach, Majewaka's study used an ARCH model to build an econometric model on the return on sponsorship capital and found that the situation varies from league to league

and cannot be generalized. Of course, Majewaka's focus is on the analysis and prediction of sponsor share price movements using economic models, and the data at the athletic level is not as detailed as in previous studies, hence the slightly different conclusions. Studies on sponsorship are mostly found in soccer clubs, as soccer is far more professionalized than other sports, and most other sports are only in countries with a high degree of professionalism where studying the market value returns of sponsors is more meaningful [11]. Brown analyzed the share price of the sponsors of the NBA Celtics club and found that the results of the games did not have a substantial impact on the share price, but rather the games themselves had a negative impact on the share price, suggesting that investors were suffering from "aesthetic fatigue" and that the long and intensive schedule of the NBA was not suitable for analysis of share price movements [12]. Eisdorfer used six models to analyze sponsor stock prices in the NFL over 26 seasons, and added an important element of sports, namely the home field factor, to the previous study. The study found that a home win led to high investor sentiment and a significant increase in sponsor stock prices; however, a loss led to a significant and larger drop in stock prices, which is an important indication of irrational investment [13].

Soccer was the first sport to be professionalized in China, and now that the professionalization of the Chinese Super League is becoming more and more sophisticated, the debate over sponsorship is increasing. Currently, there is less literature on the share prices of soccer league sponsors in China. Chen studied the share price movements of Chinese companies around the announcement date of their sponsorship of European clubs and found no significant effect of sponsorship on the market value of Chinese companies [14]. Yu-Hsiung Wang studied the stock price changes of Chinese Super League sponsors during the 2010-2014 seasons using the event study method and found that performance ranking changes do not affect stock prices [15]. Bao Peng studied the stock prices of Chinese Super League title sponsors in the 2004-2012 seasons and found that the volume of sponsorship stock prices increased significantly after the matches, but did not lead to a significant rate of return [16]. Although Yu-Hsiung Wang and Bao Peng study the post-match sponsor share price changes, they do not refine the match results and match types. In view of this, this paper attempts to contribute in the following aspects: first, to expand the research boundaries on Chinese Super League sponsors and explore the relationship between specific match results and sponsor stock returns; second, to analyze the reasons for irrational investment of sports investors from the perspective of behavioral economics through stock price movements; and third, to suggest the future sponsorship industry based on the empirical results.

2. Theory and Assumptions

The more successful football clubs are, the more they can generate higher advertising and sponsorship revenue, as most sponsorship deals provide tiered revenue based on team performance. Sponsors establish connections with fans by sponsoring well-known teams, and some fans, as part of capital market investors, have reasons to conduct certain operations on sponsor stocks according to the results of the game [8]. The analysis and hypothesis of this paper are also based on this behavior, so that behavioral economics can provide a theoretical basis for analyzing the investor behavior motivation behind stock price changes.

2.1 The impact of winning

In the field of football investment, the specific behavior of investors varies from person to person, but the objective basis behind subjective judgments is related to the results of football matches. Many related studies have analyzed this. Renneboog, Stadtmann, Benkraiem and other scholars' research results show that the average of winning and losing will lead to abnormal returns, and only the stock price will rise significantly when winning [7,8,17]. Investor psychology reflected by stock price fluctuations stems from the influence of subjective expectations. The study of subjective expectations in behavioral economics stems from the prospect theory proposed by Kahneman and Tversky. The

effect is greater than the objective probability. The club's victory increases investors' subjective expectations of the team and sponsors, and then invests in the sponsor's stock. Therefore, this paper assumes that a club's win can benefit its sponsor's market value.

2.2 Impact of home and away match results

The home-and-away system is a distinctive feature of professional soccer leagues. In addition, home field advantage in soccer has been proven to be true by several scholars [18-21], and the presence of many fans combined with home field advantage makes fans more reluctant to see a club suffer a defeat at home. Once a team plays poorly at home, the large number of fans gathered can quickly change the atmosphere of the stadium, and negative emotions can easily spread, which can then lead to loss aversion.

Tom's coin-flip betting experiment provides ample evidence of the existence of loss aversion. Loss aversion is also often found in sport [22]. For example, in basketball, coaches tend to play their star players more minutes in home games, even though they are sometimes out of shape. In a study of NFL teams' 4th downs, Romer found that when faced with the risk of loss, most teams chose to "punt" rather than "continue the drive" [23].

Therefore, this paper hypothesizes that a club's home defeat damages the sponsor's share price more than an away defeat.

2.3 Impact of unexpected match results

The theory of cognitive dissonance was developed by Leon Festinger, an American psychologist, who believed that when people's perceptions are at odds with the facts, they become emotionally dissonant. Subsequently, many scholars developed and refined it, and established the cognitive dissonance model based on many psychological experiments, showing that people not only have cognitive biases about existing information, but also have cognitive deviations when acquiring secondary information based on preferences. Cognitive dissonance behavior is contrary to the rational behavior emphasized in Bayesian decision theory and is one of the reasons for the change in investor sentiment. Although Adam Smith believed that in a market economy, individuals seek to maximize their own interests while maximizing the welfare of society, i.e., individual rationality is eventually transformed into collective rationality. However due to cognitive bias, the information investors receive is not complete, and people are influenced by the surrounding environment, when the actual results do not match the expected results, investors' psychology will change, resulting in "irrational" decision bias.

Therefore, this paper hypothesizes that when the strong team loses to the weak team, the share price of the strong team sponsor decreases.

2.4 Impact of important games

For soccer leagues, how to get more attention has always been a topic of great concern for the league. It is usually done by scheduling special games to create an atmosphere of focus on the event and create an eye-catching effect. In the stock market, when investors' attention is focused or partially focused on a stock of choice, the return of that stock rises significantly [24]. According to Broadbent's cognitive filtering theory, when information exceeds the processing capacity of the human brain, the human brain will screen out some meaningless information in order to maintain concentration, so the eyeball effect has an extremely important impact on the capital market.

Influenced by the AFC Champions League schedule, some of the matches of Chinese Super League clubs participating in the AFC Champions League each season are scheduled on Fridays. These matches tend to get a lot of attention. Most of the teams participating in the AFC Champions League are powerful giants in the league, such as Guangzhou Evergrande and Shanghai SIPG, and all these clubs have high social influence. In addition to the Friday games, the last 5 rounds of the league are also the focus of attention in the calendar year, involving key matches for the championship, AFC Champions League qualification and relegation cover almost every team. For the sponsors, they

will inevitably create momentum for the clubs through the media, and the radiation groups of the clubs will be extended in the short term. With the increase of attention flow, some stock market investors are then likely to fall their investment intention on the stocks of title sponsors.

Therefore, this paper hypothesizes that both Friday and the last 5 rounds of the league have a significant impact on the sponsor's stock price.

3. Research Design

3.1 Data sources and processing

According to the scope of the survey data, the name of the Chinese Super League club is adopted in the form of corporate title sponsorship. To ensure the representativeness of the sample, only the impact of the market value of the title sponsor is studied in this paper. The time period is five seasons from 2015-2019, the match data is from the official website of CSL, and the stock data is from China Stock Market Accounting Research Database. To ensure the consistency of the data, the clubs that are in the CSL during the observation period and do not change their title sponsors are screened out, and there are nine clubs in total. They are Jiangsu Suning, Shanghai Shenhua, Guangzhou Evergrande, Guangzhou R&F, Shanghai SIPG, Henan Jianye, Beijing Guoan, Tianjin Teda, and Shandong Luneng. And because Shandong Luneng Group is a non-listed company, be excluded, and finally retain 8. If there are two or more title sponsors, in order to avoid repeated analysis, this paper only observes the main sponsor. 8 stock names and codes are A shares: Suning Tesco (002024), Greenland Holdings (600606), Shanghai Port Group (600018), CITIC Guoan (000839), TEDA (000652 H shares: China Evergrande (0333), Fuli Real Estate (027777), Jianye Real Estate (00832).

3.2 Identification Strategy

3.2.1 Identify events

The events in this paper are for 8 clubs over 5 seasons, for a total of 1,200 events. The events occur on match days, and although there will be mutual encounters, the results of the matches may be different for the two teams and correspond to different share prices, so the events are not combined. Considering the possibility of corporate suspensions and restructuring, the club matches sponsored by the company are not counted when similar situations occur. After counting, only suspensions occur, and after sifting out these events, 1,178 events are left. The event date is time base at $t=0$.

3.2.2 Determine the estimation window and event window

The estimation window is used to calculate the expected return of a stock, which is typically 200 trading days *ex ante*. Soccer leagues are generally one round a week, or more often double a week, and the frequent schedules make it impossible for studies to derive an estimation window without event days, which is an important issue. On this point, as suggested by researchers such as Brown and Campbell, when events are frequent, there is a need to ensure an estimation window of sufficient length to avoid bias in the results of regression analysis due to overlapping estimation windows [25-27]. studies by Brown for basketball leagues and by Scholtens for soccer leagues use larger estimation windows. Unlike cup competitions, each round of the league is extremely homogeneous and the parameters do not deviate significantly within the estimation window [12, 10]. Therefore, this paper follows Scholtens, Eisdorfer and uses the 250 trading days before the event as the estimation window [10, 13].

The event window is set to observe the stock price fluctuation during this period, and most of the related studies use a 1-day observation period, i.e., they only examine the stock price movement on the 1st trading day after the race. Regarding the 1-day event period, Henderson's study finds that the use of both mean-adjusted and market-adjusted models is less effective than the market model, which further supports the reasonableness of the model in this paper [28]. Therefore, the event window in this paper is only the 1st trading day after the race.

3.2.3 Calculation of yield, expected yield, abnormal yield

$$R_{it} = \alpha_1 + \beta_i R_{mt} + \varepsilon_{it} \quad (1)$$

Among them, R_{it} denotes the return of stock i on day t , R_{mt} denotes the return of the market on day t , and ε_{it} is the random disturbance term. After deriving the coefficients of α and β by OLS regression, the abnormal return of the stock is calculated as follows:

$$AR_{it} = R_{it} - R'_{it} = R_{it} - (\alpha_1 + \beta_i R_{mt}) \quad (2)$$

Among them, AR_{it} denotes the abnormal return of stock i on day t and R'_{it} denotes the actual return of stock i on day t .

$$AAR = \frac{1}{n} \sum_{i=1}^n AR_i \quad (3)$$

Among them, AAR denotes the average abnormal return, AR_i denotes the abnormal return of the stock, and n denotes the number of observed samples.

This paper uses t-test to determine whether the AAR is significant, and the original hypothesis H_0 is "the study event has no effect on the stock price".

3.3 Variables

3.3.1 Basic Competition Results

There are 3 most basic match outcomes for soccer matches, which are used as the basis for measuring the subjective probability of investors and observing the stock price movements on the post-match trading day, and the 3 scenarios are analyzed in the A-share market, the H-share market and the overall market after the merger of the two markets.

3.3.2 Home and Away Match Results

Referring to the study of Eisdorfer, in this paper, we use the variable home and away as a basis for determining whether investors show loss aversion performance [13]. In this subsection, we combine the outcome of the win-draw-loss matches with the home and away games for a total of six scenarios, and we then analyze these six scenarios by placing them in the A-share market, the H-share market, and the overall market after the merger of the two markets.

3.3.3 Unexpected Match Results

As mentioned earlier, unexpected match outcomes are a prerequisite to produce cognitive dissonance. To determine unexpected outcomes, the expected match outcome must first be determined. The expected match outcome refers to the pre-match probability of the match outcome and is currently studied mainly by the odds of bookmakers. Forrest, Palomilo, Scholtens, and Eisdorfer all used the betting point difference between the initial and final odds as a condition for determining the expected win [29,30,10,13]. As a supplement, Eisdorfer also added a new adjudication condition, i.e., three consecutive wins or three consecutive losses as the basis for determining the expected match outcome, but this is susceptible to shocks from short-term fluctuations in team form, which distort the expected outcome [13]. The Asian handicap was launched in the late 1990s, and compared to European odds, the Asian handicap betting options are only on the upper and lower handicaps, transforming betting on the outcome of soccer matches into a zero-sum game, where the initial handicap opening better reflects the degree of team strength and weakness and is more conducive to the screening of expected results. Therefore, this article filters out the Asian handicap of Crown's Asian handicap of half a percent and above to ensure that the strengths and weaknesses are clear, the handicapper is the expected winner, the handicapped is the expected loser, and the games below the half a percent handicap are not observed because the strengths are too close.

The handicap data is obtained from www.win007.com. Similarly, combining the 3 results of win, draw and loss with expected win and expected no win, there are 6 scenarios, and these 6 scenarios are analyzed in the A-share market, H-share market, and the overall market after the merger of the two markets.

3.3.4 Friday's events / last 5 rounds

In order to investigate whether key time period matches can bring about an eye-catching effect, which in turn affects the sponsor's share price, this paper compares the analysis results of Friday matches with non-Friday matches, and analyzes all matches in the last 5 rounds. Due to the small amount of data, only the results of the overall market are analyzed in this section.

4. Empirical Results

4.1 Impact of base match results

Table 1 Influence of underlying competition results on stock prices

Market	Competition Results	AAR	Max.	Min.	Standard deviation
Volume (<i>n</i> =1178)	Win	0.0094**	0.2002	-0.1347	0.0279
	Tie	-0.0081	0.1113	-0.0829	0.0227
	Lose	-0.0075	0.0988	-0.0880	0.0230
A Shares (<i>n</i> =729)	Win	0.0085**	0.0876	-0.1347	0.0228
	Tie	-0.0070***	0.0851	-0.0713	0.0213
	Lose	-0.0062	0.0988	-0.0880	0.0220
H Shares (<i>n</i> =449)	Win	0.0036	0.2002	-0.0997	0.0340
	Tie	-0.0010	0.1113	-0.0829	0.0253
	Lose	0.0077	0.0895	-0.0811	0.0244

Note: ***, **, * denote 1%, 5% and 10% level of significance respectively, hereinafter.

Table 1 shows the impact of the underlying match results on share prices. Overall, the AAR for winning is 0.009 4, significant at the 5% level, while ties -0.008 1 and losses -0.007 5, both insignificant, suggesting that overall, winning match outcomes can increase share prices by 0.94%, confirming the hypothesis above. In contrast, draws and losses have no significant effect, rejecting the hypothesis above and differing from studies by Renneboog , Stadtmann, Scholtens and others[7,8,10]. Refining to the A and H share markets, the picture is slightly different. the AAR for winning in the A share is 0.008 5, for drawing -0.007 0 and for losing -0.006 2, where winning and drawing are significant at the 5% and 1% levels respectively. The AAR for the title sponsor listed on the A-share is 0.85% higher for a club win, 0.7% lower for a draw and insignificant for a loss, while for the H-share it is 0.003 6 for a win, -0.001 0 for a draw and 0.007 7 for a loss, all insignificant. Interestingly, judging by the sign, losing is instead beneficial to the rise in share price. This suggests that it is extremely difficult for H-share market sponsors to increase their market capitalisation through Chinese Super League matches due to poor information channels or investors' own lack of interest in the league.

4.2 Impact of home and away match results

Table 2 Impact of home and away match results on stock prices

Market	Competition Results	AAR	Max.	Min.	Standard deviation
Volume (n=1 178)	Home Win	0.0014**	0.2002	-0.1347	0.0288
	Home Tie	-0.0005*	0.5876	-0.0548	0.0228
	Home Lose	-0.0029**	0.0837	-0.0880	0.0219
	Away Win	0.0022*	0.1565	-0.0714	0.0264
	Away Tie	-0.0016	0.0851	-0.0829	0.0226
	Away Lose	0.0014	0.0988	-0.0811	0.0234
A Shares (n=729)	Home Win	0.0020***	0.0809	-0.1347	0.0236
	Home Tie	-0.0024**	0.5876	-0.0548	0.0195
	Home Lose	-0.0026**	0.0837	-0.0880	0.0235
	Away Win	0.0013*	0.0876	-0.0714	0.0212
	Away Tie	0.0068	0.0851	-0.0713	0.0227
	Away Lose	0.0047	0.0988	-0.0630	0.0212
H Shares (n=449)	Home Win	0.0039*	0.2002	-0.1000	0.0359
	Home Tie	0.0033	0.1113	-0.0480	0.0265
	Home Lose	-0.0033*	0.0376	-0.0514	0.0191
	Away Win	0.0033	0.1565	-0.0604	0.0317
	Away Tie	-0.0086	0.0303	-0.0829	0.2126
	Away Lose	0.0027	0.0895	-0.0811	0.0266

Table 2 shows the impact of home and away match results on share prices. Overall, the home win AAR is 0.001 4, the away win 0.002 2, the home draw -0.000 5 and the home loss -0.002 9, corresponding to an increase or decrease of +0.14%, +0.22%, -0.05% and -0.29% respectively, all four of which are statistically significant. All four are statistically significant, suggesting that home games attract more attention from investors. Looking further, it was found that a win boosted the share price, with an away win increasing more than a home win. A home loss leads to a fall in the share price more than an away win does for the share price, fully confirming the existence of loss aversion. Therefore, it is even more important for clubs to focus on home games. A home loss for a club can exacerbate the negative effects, leading to more severe financial losses and word-of-mouth implications than an away loss.

After splitting the overall data, the A-share market has an AAR of 0.002 0 for home wins, 0.001 3 for away wins, -0.002 4 for home draws and -0.002 6 for home losses, all of which are statistically significant and roughly the same as the overall sample. This is probably since the H-share listed sponsors include Evergrande and Fuli, two Guangzhou clubs that are well known and have a wider reach in the neighborhood during home games, while the draws are relatively few and do not attract as much traffic after the match as the matches with a winner. Hence only 2 notable entries.

4.3 Impact of unexpected match results

Table 3 Impact of the combination of expected and actual match results on stock prices

Market	Competition Results		AAR	Max.	Min.	Standard deviation
Volume (n=597)	As expected	Win	0.0028**	0.2002	-0.0904	0.0301
		Tie	-0.0135	-0.0094	-0.0176	0.0058
		Lose	0.0002	0.0895	-0.0468	0.0205
	Not as expected	Win	-0.0018**	0.0281	-0.0271	0.0137
		Tie	-0.0021	0.0851	-0.0829	0.0231
		Lose	0.0039**	0.0832	-0.0372	0.0213
A Shares (n=340)	As expected	Win	0.0022**	0.0809	-0.0904	0.0217
		Tie	-0.0135*	-0.0094	-0.0176	0.0058
		Lose	-0.0018	0.0643	-0.0468	0.0178
	Not as expected	Win	-0.0052**	0.0281	-0.0271	0.0150
		Tie	-0.0019	0.0851	-0.0548	0.0211
		Lose	0.0023**	0.0392	-0.0372	0.0163
H Shares (n=257)	As expected	Win	0.0064**	0.2002	-0.0655	0.0390
		Tie	-0.0110	-0.0096	-0.0122	0.0311
		Lose	0.0029	0.0895	-0.0414	0.0237
	Not as expected	Win	0.0045	0.0257	-0.0253	0.0128
		Tie	-0.0025	0.0526	-0.0829	0.0265
		Lose	-0.0023	0.0832	-0.0355	0.0269

Table 3 shows the impact on share prices when combining expected and actual match results. Overall, the AAR for an expected win was 0.0028, which was statistically significant. This represents a significant increase in share price of 0.28% when the expected outcome was a victory and the actual match was won.

This section focuses on 2 unexpected outcomes, namely unanticipated wins and unanticipated losses, with the AAR for the 2 outcomes being -0.0018 and 0.0039, respectively, both of which are statistically significant. Significantly, this result differs from the studies of Scholtens and Eisdorfer which does not fit the hypothesis of this paper [10,13]. As shown in Table 3, a cold win by a weak team leads to a lower share price and a cold win by a strong team leads to a higher share price. The reason for this situation could be, on the one hand, cognitive dissonance bringing about biased investment behavior, and on the other hand, it could also be that investors themselves have little understanding of the athletic dimension and their investments remain at the purely technical level. Although the Chinese Super League has gained a certain degree of international popularity through the introduction of aid, it still lacks in terms of cultural communication and broadcasting levels, and the clubs are still not well known. Therefore, in the future, the Chinese Super League will still need to use various forms of media platforms to spread the content of the league to the domestic and international mainstream public.

Comparing the A-share market with the H-share market, there are four significant scenarios for the A-share market: a win that meets expectations (0.0022), a draw that meets expectations (-0.0135), a win that does not meet expectations (-0.0052), and a loss that does not meet expectations (0.0023). This result is largely in line with the overall market. Only the H-share market had an expected win (0.0064) which was significant, while the rest of the results were insignificant, indicating that unexpected match results have little impact on the H-share market.

4.4 Impact of Friday's match/last 5 rounds results

Table 4 Impact of Friday's match results on stock prices (n=1,178)

Competition Results		AAR	Max	Min	Standard deviation
Friday's game	Win	0.003 7***	0.200 2	-0.060 4	0.034 9
	Tie	-0.005 9**	0.058 8	-0.082 9	0.024 2
	Lose	0.003 0	0.085 3	-0.037 2	0.024 9
Non-Friday games	Win	0.001 1	0.156 5	-0.134 7	0.026 9
	Tie	0.000 8	0.111 3	-0.071 3	0.022 4
	Lose	-0.006 0	0.098 8	-0.088 0	0.022 6

Table 4 shows the impact of Friday match results on share prices. The results show that Friday matches do prolong investors' investment enthusiasm, with the AAR for Friday match wins at 0.003 7, meaning a 0.37% rise in share price, and draws at -0.005 9, both statistically significant, while the rest of the options are insignificant. This suggests that the eyeballing effect does gather enthusiasm for investing, and that even with a 2-day market closure, investors retain their memories of these contests, allowing the AAR to reach a significant return on Monday.

Table 5 Impact of the results of the last 5 rounds on stock prices (n=196)

Competition Results		Max.	Min.	Standard deviation
Win	-0.002 7	0.054 2	-0.099 7	0.0205
Tie	-0.001 5	0.034 2	-0.082 9	0.0196
Lose	-0.002 0	0.068 0	-0.081 1	0.0228

Table 5 shows the impact of the results of the last 5 rounds on the share price. The results show that the AAR for all 3 outcomes of the win, draw and loss did not reach a significant level, and the direction of the impact shows that the share price fell regardless of the outcome, suggesting that the last 5 rounds were unable to translate the eye-candy effect into real gains.

The study showed that the results of the last five rounds of matches would not significantly affect sponsor share prices, and that the last five rounds should gather more eyeballs than the Friday games in terms of the criticality of the matches, but the results rejected the original hypothesis. Chinese Super League (CSL) clubs have changed sponsors frequently in recent years, with some companies nominally sponsoring clubs but in fact using them to capture policy dividends, which fans have been quite vocal about. An important reason for the empirical results of this paper may be that investors are pessimistic about the continued sponsorship of sponsors. From the empirical results, whatever the outcome of the last five rounds, the sponsor's share price will fall, clearly disturbed by the poor reputation of the overall sponsorship of the Chinese Super League. At present, corporate sponsorship of football clubs is seen more as a short-term tool with a strong sense of expediency, so title sponsors need to change their thinking about sponsorship, which is not only conducive to improving the image of sponsorship, but also to the healthy development of clubs [15].

5. Conclusions

Using an event study approach, this paper empirically analyses the impact of Chinese Super League match results on the share price of title sponsors. The results show that: (i) winning has a significant effect on sponsor share prices; (ii) winning away from home boosts share prices more than winning at home, while losing at home causes share prices to fall significantly and by a greater margin than the former two; (iii) when there is a cold spell, share prices of sponsors of strong teams rise significantly while those of weak teams fall significantly; (iv) Friday match results significantly affect share prices; and (v) Chinese Super League matches have a stronger impact on A-share sponsors than the H-share market.

Based on the above findings, the following recommendations are made: (i) Clubs need to consider competition as their first priority, especially the importance of home games, and use performance as the primary condition to attract sponsorship; (ii) Publicity needs to be enhanced to raise public awareness of the CSL, while placing some of the strong teams' participation on a separate match day to raise public attention to the league; (iii) Sponsors need to shift their sponsorship to a different level and change their sponsorship philosophy, establish a sponsorship evaluation system with fans as the core group, pay more attention to the needs of fans, and achieve true "football sponsorship" in order to build a good reputation.

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