



Title Sponsorships in Sports Events and Stock price Behaviour: Evidence from Pakistan Super League

Furqan Ullah¹, Hamid Ullah² & Faiza Mahreen³

Keywords:

Sports Sponsorship, T-20 Cricket, Stock Price Reactions, Sponsorship Renewal, Event Study, Pakistan Super League.

ABSTRACT

This study aims to examine the stock price behaviour of Habib Bank Ltd following title sponsorship announcements and events of the Pakistan Super League. For this purpose, secondary data collected relating to Pakistan Super League and HBL Stock prices from 2015 to 2019 by applying an event study methodology. The results of the event study analysis of the title sponsorship announcement revealed significant increases in stock prices of the Habib Bank, Ltd around the announcement and the event days; however, no significant positive changes noticed after the renewal of the sponsorship announcement as mentioned. Moreover, the results also showed no significant influence in renewing the said title sponsorship on the pre-and post-event windows' stock price behaviour. Hence, this study suggested that the sponsoring firm should focus on its marketing strategies to effectively promote its sponsorship campaign and capture investors' attention in the market during the event. This study contributes to the existing literature as being the first study on title sponsorship announcements and renewals of the Pakistan Super League and its effect on the stock price behaviour of Habib Bank Limited.

INTRODUCTION

Historically, one of the most sought-after sponsorship activities has been that of the "title sponsor". For the moment, we recall the definition of sponsorship as "a cash and in-kind fee paid to a property (typically a sport, entertainment, non-profit event or organization) in returns for access to the exploitable, commercial potential associated with that property" (IEG, 2000). Moreover, the title sponsorship is defined here as the acquisition of rights to participate in the event's official name to obtain benefits related to that name-sharing. Over the past three decades, sponsorships have mainly used in the global

¹PhD Scholar, Department of Management Science, Islamia College Peshawar.

²Assistant Professor, Department of Management Sciences, Islamia College Peshawar.

³PhD Scholar, Department of Management Sciences, Qurtaba University of Science & Information Technology Peshawar

industry and commercial investment opportunity (Bezler, 2013; Blake, Fourie, & Goldman, 2019). This statement shows the advantages that sponsorships offer by participating in the events. By avoiding traditional strategies and accessing a well-defined target market (Paula Gardner & Shuman, 1987) and for promoting brand equity (T. Bettina Cornwell et al., 2001); different corporations usually tend to associate with the mega sports events that provide a base for the consumers to use the products (Ferreira et al., 2016).

In general, sponsorship activity expected to influence future cash flows for many reasons, as provided chronologically by (Mishra, Bobinski & Bhabra, 1997). On the positive side, sponsorship activity may help build image, lead to spirit de corps among employees, promote awareness and goodwill, while on the negative side (Mishra et al., 1997) pointed out agency problems and challenges of intra-organizational coordination. Sponsorship and advertising play critical roles in the job of management scholars (Dolphin, 2003). It is simple to measure sponsorship spending. However, it is difficult to capture its effectiveness and economic consequences for the sponsoring firm (Crompton, 2004; Ozturk & Kocak, 2016). Exchange theory demonstrates the process of sports sponsorship and its effects on the stockholder's wealth maximization. Public, private and "not for profit" use different innovative means for generating funds and meanwhile, sponsorship represents one of the promising alternatives for the generation of revenues. (McCarville & Copeland, 2016) suggested that partners choose sponsorship opportunities that offer the most optimal rewards with a major probability of success in the future under exchange theory. Hence, success in the past will guide them for future sponsorship decisions in the future.

Globally, title sponsorships of sports properties appealing very expensive. As an example, some have argued that "PGA right's fees have gotten extremely high, so much that the executives at the sponsoring companies are asking themselves, what's our return on this?" (Foust, 2002). The sponsorship cost for the Barclays New Jersey Nets arena at \$400 million and Adidas sponsorship cost for the German National Football Team at \$298 million likened to starting a new factor or buying another company (The Economist, 2008). Likewise, Pakistan Cricket Board (PCB) has received \$14.3 million as part of the renewal of the title sponsorship deal from the sponsoring bank of Habib Bank, Ltd in 2018, but this deal of renewal worth three times more than the first-time deal of \$5.2 million signed by HBL as HBL-PSL in 2016 (The Weekly Pakistan, 2019). Therefore, these expenses bring into the question of what is our return on this?

In light of the increasing need for systematic measurement of sponsorship, much of the current literature has studied the impact of major sponsorship announcements on the stock price behaviours (Clark,

Cornwell, & Pruitt, 2009; Cornwell, Pruitt, & Clark, 2005; Frame & Farrell, 2005; Samitas, Kenourgios, & Zounis, 2008) and stock market returns (Berman, Brooks, & Davidson, 2002; Mirman & Sharma, 2010; Dick & Wang, 2010; Abuzayed, 2013). More particularly, Some have attempted the title sponsorship, renewal and termination of sponsorship impact on the stock price returns (Ozturk & Kocak, 2016b; Kruger, Goldman, & Ward, 2014; Kruger et al., 2014; Kudo, Jae Ko, Walker, & Connaughton, 2015; Spais & Filis, 2008; Edeling, Hattula, & Bornemann, 2017).

An analysis of the stock price behaviours linked with a mega-event is an event study analysis widely used as an accepted technique in finance, marketing, accounting, and management (Pruitt et al., 2004). This methodology has applied for various official product sponsorship-related studies like PGA Tours, Olympic Games, NASCAR and stadium naming rights, National Football League (NFL), Major League Baseball (MLB), National Hockey League (NHL), the National Basketball Association (NBA), Professional Golfers' Association (PGA). But despite its major use, title sponsorship has received very little attention in the literature (Clark et al., 2009; Fizek & McNeil, 2017). In Pakistan, since the attack on the Sri Lankan Cricket team in 2009, there was no more attraction and charm for international Cricket. Still, Pakistan Cricket Board (PCB) coined a new International scheme of Cricket 'Pakistan Super League', and hence iconic international players participating there in the event. Much of the previous research has focused on sponsorship impact in developed countries and events other than Cricket. Therefore, this study is bridging the gap between the title sponsorship and its influence on the stock price behaviour of HBL in the context the of Pakistan Super League event in the emerging country of Pakistan.

Objectives of the study

The purpose of this study is threefold.

- First, it investigates the influence of the title sponsorship announcement on the stock prices behaviours;
- Second, this study documents the renewal impact of title sponsorship on stock prices behaviours.
- Third, this study explores the pre and post-event effects on the stock prices behaviours.

REVIEW OF LITERATURE AND HYPOTHESES DEVELOPMENT

Efficient market hypothesis and Behavioural Finance

According to the Efficient Market Hypothesis, stocks always trade at their fair value on stock exchanges, making it impossible for investors to purchase undervalued stocks or sell stocks for inflated prices (Fama, 1970). Fama (1970, p.383) clearly defined market efficiency as "A market in which prices always

'fully reflect' available information". Therefore, rational investors will assign specific values to securities based on their expectations and what has been established by the availability of all information. (Yang et al., 2015) discussed the "Random Walk" as the term refers to the situation in which subsequent price change represents an unexpected departure from previous prices. As a result, prices fully reflect all the available known information (Malkiel, 2003). That is why the prices of the stocks will depict all available information, and therefore the securities will be priced correctly.

Mishra and Smyth (2010) said that one might expect sports events and sponsorship that these are the non-economic phenomenon. Therefore, it has no significant impact on the stock price returns. Still, the meanwhile behavioural finance theory suggests that important sports events generate sentiments among the viewers and the investors, which ultimately lead to "mood swings" in the stock market and hence reflected in the stock prices returns.

Likewise, calendar anomalies have a greater significant impact on the stock market performance and stock prices returns. Calendar anomalies are that news, events which happen in the stock market or its surrounding during the calendar hours as (Seif et al., 2017) tested days of the week anomalies along with the other January effect and month of the year, week 44 and number of different holidays in the calendar time. The authors showed significant results but an insignificant association between the other January anomalies and stock market performance. On the other hand, another researcher carried out the same study (Haug & Hirschey, 2006) and concluded positive results via the January effects.

Hobbs, Schaupp, and Gingrich (2016) documented a link between 28 terrorist and military events and their effects on the stock return during the study period ranging from 1963 to 2012 and showed that stocks performed worst on the day when there is any terrorist event than on the days of military events. This worst impact particularly noticed via lower returns where events occurred inside the USA or where the USA was on the primary target of the attack. Another dimension of the morning sunshine is studied by (Hirshleifer & Shumway, 2003) and documented that stock return sharply positively reacted after morning sunshine. Furthermore, (Agrawal & Kamakura, 1995) investigated celebrity endorsement against the stock return and positively impacted the stock return. Finally, (Fatima et al., 2019) studied the impact of good and bad news on the Islamic stock market and found that adverse shocks strongly affect the Islamic stock market compared to positive shocks.

Sports sponsorship through Exchange Theory

Sponsorship involves providing support in return for specified rights or privileges and a group or an individual that gives support very similar to a benefactor known as Sponsor (Sleight, 1989). In sponsorship, organizations provide funds and assistance as well as retail goods. What we know about

sport sponsorship was originated back in the 19th century. The first modern examples took place in 1861 when spiders and pond, an Australian firm, sponsored the first-ever England cricket tour of Australia (Sleight, 1989). After this sponsorship, the Spiers and Pond reported a profit of £11,000 (McCarville & Copeland, 2016). Major companies perceive sponsorship as a source of gain for their organizations, and hence they refer to this gain of sponsorship to Exchange theory. This Exchange theory suggests that it is a situation where the desired outcomes achieved through the collaboration of both parties (Blalock & Wilken, 1979). Exchange theory merely based on the basic three principles of rationality, marginal utility, and fair exchange (Turner, 1986).

Exchange and Rationality

Exchange and rationality are characterized by action and directed toward specified goals or reward (Simon, 2002). People usually make decisions based on their stimulus-response relationship as (Rex & Homans, 2007) suggested that exchange partners in sport sponsorship evaluate sponsorship in terms of past experiences. McCarville and Copeland, 2016 argued that if companies have received a reward, success, favourable media exposure, and product sales after the sponsorship of an event in the past, they might most presumably respond when presented with some more comparable proposals the decision-making process for sponsorship.

Exchange and Marginal Utility

It refers to the relationship between access to rewards and their value (McClosky, 1982). Persistent rewards decrease the value of that reward. According to the previous research conducted by (McCarville & Copeland 2016), values assigned to a single sponsorship simply diminished, as there are more competing opportunities available. This study proposed that when sponsors rely on a limited number of rewards would lead to the devaluation and satiation of those rewards. The authors also suggested that the exchange of sponsorship would produce more enhanced potentials when sponsorship partners provided multiple reward opportunities in exchange for their resources.

Exchange and Fairness

Exchange and fairness are the maintenance of an exchange relationship contingent upon the destruction of rewards and resources. If this exchange of sponsorship between the partners is fairly distributed, partners are likely to be motivated to continue sponsorship for a more extended period. This fairness might be established by equality norms, which states that the outcome of the sponsorship distributed equally regardless of input resources. Unfortunately, this norm is seldom preferred for long-term sponsorship partners (Sell & Martin, 1983).

Sports Sponsorship and Stock Price Returns

Kudo, Jae Ko, Walker, and Connaughton (2015) used event study methodology investigating the association between the abnormal stock prices following the event dates and, more particularly, the Title sponsorship of NASCAR, the PGA tour, and the LPGA Tour. The authors demonstrated a significant impact of event dates and title sponsorship on the stock price increase. (Jensen & Hsu, 2011) examined five years of data of sponsorship spending along with the business performance indicators of more than 50 US-based companies. In this study, the authors documented whether investing in sponsorships will lead to business performance and indicated that corporations who spend more on sponsorship just outperformed those who spent below-average levels.

In Australia, (Johnston, 2010) studied 51 sponsorship announcements and their impact on the share price of the sponsoring firms listed on the Australian Stock Exchange and observed a slight positive increase in the stock prices of the sponsoring firms. (Bibby, 2009) explored sports sponsorship between the brand image and brand equity during the 2003 Rugby World Cup held in Australia. The authors have undertaken the bivariate correlation analysis to find an association between Adidas' brand image and Adidas' brand equity in the All Blacks' performance during the Rugby World Cup. Authors said that brand image has a close positive association with brand equity in sports sponsorship.

A comparative study in the context of sponsorship is investigated by (Ozturk & Kocak, 2016) to analyse the difference between the firms securing sponsorships and those leading competitors that do not seek any participation in sponsorship activities. The authors concluded that no such differences found for companies that choose to sponsor Paralympic game and their leading competitors in the market.

Hypotheses of the study

The following hypotheses proposed for the current study;

H₁: Announcement of PSL Title-Event Sponsorship will positively affect the stock prices of the sponsoring firm of Habib Bank Limited.

H₂: Renewal of the Title Sponsorship positively influences the stock prices of the sponsoring firm Habib Bank Limited.

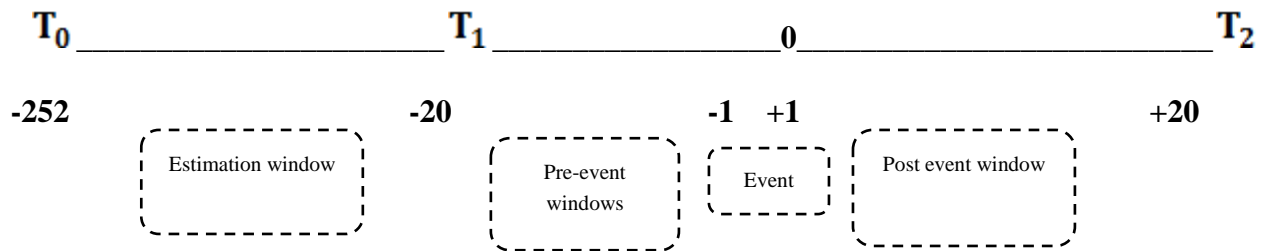
H₃: The abnormal stock prices return of Habib Bank, Limited announcing the title sponsorship renewals will differ from Habib Bank, Limited, announcing first-time title sponsorship

H₄: Event dates of the Title Sponsorships positively influence the stock prices of the sponsoring firm Habib Bank Limited.

EVENT STUDY RESEARCH METHODOLOGY

This study will find the association between title event sponsorship and share price reactions of the sponsoring firm of HBL in Pakistan. The authors collected the data from the Pakistan Stock Exchange website: www.psx.com.pk, ranging from 2015 to 2019, respectively, While Data regarding sponsorship and PSL events dates downloaded from the official website of Pakistan Super league www.psl-t20.com. In this area, many studies conducted on exploring the association between different types of announcements, event sponsorship dates and stock price reactions followed by event study methodology (Miyazaki & Morgan, 2015). To assess the association between Sponsorship announcements, events and stock price, the authors adopted the methods of (Mazodier & Rezaee, 2013), where they used the Market Model to determine the abnormal returns, Average abnormal returns and cumulative average abnormal returns during the sponsorship events. To run AR, AAR and CAAR models, we must first develop the Timeline for event study;

TIMELINE FOR AN EVENT STUDY



Where;

- The interval T_0 - T_1 is the estimation window
 - The interval T_1 - T_2 is the overall event window
 - Time 0 is the event date in calendar time
 - The interval T_1 - 0 is the pre-event window
 - The interval 0 - T_2 is the post-event window
- **Estimation windows**
 In this study, we use the estimation window to determine the normal behaviour of the stock market factors, and most often, we use the Market model: $R_{it} = \alpha + \beta_i R_{mt}$ To determine the "normal" behaviour.

- **Event window**

In conjunction with the a and the b of the stock, we use data from this period to determine whether the event announcement was anticipated or leaked. Second, the "Post announcement" effect that how long it took the event information to observe by the market.

- **Post-event window**

We use this window to investigate longer-term "stock" performance following the event in the stock market.

- **Pre-event window**

We use this window to investigate the effect of the event before the announcement in the stock market.

For the above estimation and event/observed windows, we run the following Regression Market models to determine the R_{it} , AR_{it} , AAR_t and $CAAR_t$.

Estimation for R_{it} , AR_{it} , AAR_t and $CAAR_t$

$$R_{it} = \alpha + \beta_i R_{mt}$$

To assess the sponsorship announcement's impact on shareholder's wealth, we implemented a market model for abnormal returns. We estimated the market model variables (α and β) for an estimation period immediately before the event period. The estimation period lasted two days; the event period is composed of days -20 to +20 around the event dates and announcement dates.

Let R_{it} be the observed return for stock prices i on day t and R_{mt} be the return on the index for day t is;

$$AR_{it} = R_{it} - (\alpha_i + \beta_i R_{mt}) \quad (1)$$

The average abnormal return on day t for a given sample of N sponsorship is;

$$AAR_t = \frac{1}{N} \sum_{j=1}^N AR_{jt} \quad (2)$$

Then, the cumulative average abnormal return between event days α and β can calculated as;

$$CAAR_{a,b} = \frac{1}{N} \sum_{j=1}^N \sum_{t=1}^b AR_{jt} \quad (3)$$

RESULTS AND DISCUSSION

Table 4.1: First Season of HBL-PSL 2016

| Time | AR | t-AR | AAR | t-AAR | CAR | t-CAR | CAAR | t-CAAR |
|------|---------|----------|---------|-----------|---------|----------|---------|----------|
| -20 | -0.0118 | -13.4509 | -0.0118 | -147.9993 | -0.0118 | -4.4268 | -0.0118 | -7.9259 |
| -19 | -0.0084 | -9.5761 | -0.0101 | -126.6822 | -0.0201 | -7.5783 | -0.0159 | -10.7473 |
| -18 | 0.0121 | 13.8745 | -0.0027 | -33.5680 | -0.0080 | -3.0121 | -0.0133 | -8.9625 |
| -17 | 0.0013 | 1.4677 | -0.0017 | -21.1387 | -0.0067 | -2.5291 | -0.0116 | -7.8540 |
| -16 | -0.0128 | -14.7038 | -0.0039 | -49.2681 | -0.0196 | -7.3682 | -0.0132 | -8.9217 |
| -15 | -0.0066 | -7.6026 | -0.0044 | -54.9986 | -0.0262 | -9.8703 | -0.0154 | -10.3801 |
| -14 | -0.0172 | -19.7392 | -0.0062 | -78.1687 | -0.0434 | -16.3666 | -0.0194 | -13.0835 |
| -13 | -0.0040 | -4.6222 | -0.0059 | -74.7549 | -0.0475 | -17.8878 | -0.0229 | -15.4514 |
| -12 | -0.0130 | -14.8990 | -0.0067 | -84.6636 | -0.0605 | -22.7912 | -0.0271 | -18.2687 |
| -11 | 0.0088 | 10.0569 | -0.0052 | -65.1317 | -0.0517 | -19.4814 | -0.0295 | -19.9299 |
| -10 | -0.0102 | -11.7056 | -0.0056 | -70.9194 | -0.0619 | -23.3338 | -0.0325 | -21.9161 |
| -9 | -0.0064 | -7.3215 | -0.0057 | -71.7226 | -0.0683 | -25.7433 | -0.0355 | -23.9307 |
| -8 | -0.0068 | -7.7484 | -0.0058 | -72.7636 | -0.0751 | -28.2934 | -0.0385 | -25.9867 |
| -7 | -0.0005 | -0.5360 | -0.0054 | -67.9875 | -0.0756 | -28.4698 | -0.0412 | -27.7715 |
| -6 | -0.0298 | -34.1246 | -0.0070 | -88.4864 | -0.1054 | -39.7004 | -0.0455 | -30.6588 |
| -5 | -0.0030 | -3.4437 | -0.0068 | -85.3242 | -0.1084 | -40.8338 | -0.0494 | -33.3121 |
| -4 | 0.0365 | 41.7612 | -0.0042 | -53.2759 | -0.0719 | -27.0899 | -0.0507 | -34.2057 |
| -3 | 0.0211 | 24.1675 | -0.0028 | -35.5432 | -0.0508 | -19.1362 | -0.0507 | -34.2088 |
| -2 | 0.0240 | 27.4713 | -0.0014 | -17.7638 | -0.0268 | -10.0952 | -0.0495 | -33.3597 |
| -1 | 0.0096 | 10.9988 | -0.0009 | -10.8246 | -0.0172 | -6.4754 | -0.0478 | -32.2714 |
| 1 | -0.0053 | -6.0182 | -0.0053 | -66.2177 | -0.0053 | -1.9806 | -0.0053 | -3.5462 |
| 2 | 0.0269 | 30.7651 | 0.0108 | 136.1448 | 0.0216 | 8.1444 | 0.0082 | 5.5180 |
| 3 | -0.0150 | -17.1717 | 0.0022 | 27.7834 | 0.0066 | 2.4931 | 0.0077 | 5.1666 |
| 4 | -0.0031 | -3.5319 | 0.0009 | 11.1221 | 0.0035 | 1.3307 | 0.0066 | 4.4705 |
| 5 | 0.0091 | 10.3672 | 0.0025 | 31.7116 | 0.0126 | 4.7426 | 0.0078 | 5.2747 |
| 6 | 0.0115 | 13.1892 | 0.0040 | 50.6130 | 0.0241 | 9.0832 | 0.0105 | 7.1061 |
| 7 | -0.0054 | -6.2154 | 0.0027 | 33.6129 | 0.0187 | 7.0377 | 0.0117 | 7.8910 |
| 8 | 0.0091 | 10.3857 | 0.0035 | 43.6954 | 0.0278 | 10.4557 | 0.0137 | 9.2447 |
| 9 | -0.0082 | -9.3661 | 0.0022 | 27.3898 | 0.0196 | 7.3732 | 0.0144 | 9.6844 |
| 10 | -0.0191 | -21.8343 | 0.0000 | 0.6266 | 0.0005 | 0.1874 | 0.0130 | 8.7495 |
| 11 | -0.0115 | -13.2111 | -0.0010 | -12.6450 | -0.0110 | -4.1604 | 0.0108 | 7.2769 |
| 12 | -0.0084 | -9.5903 | -0.0016 | -20.3847 | -0.0194 | -7.3167 | 0.0083 | 5.5788 |
| 13 | 0.0025 | 2.9108 | -0.0013 | -16.3530 | -0.0169 | -6.3587 | 0.0063 | 4.2739 |
| 14 | -0.0092 | -10.5760 | -0.0019 | -23.4969 | -0.0261 | -9.8393 | 0.0040 | 2.7103 |
| 15 | 0.0061 | 7.0113 | -0.0013 | -16.7874 | -0.0200 | -7.5319 | 0.0024 | 1.6306 |

| | | | | | | | | |
|-----------|---------|----------|---------|----------|---------|----------|---------|---------|
| 16 | -0.0059 | -6.7863 | -0.0016 | -20.4050 | -0.0259 | -9.7653 | 0.0006 | 0.4359 |
| 17 | 0.0009 | 0.9996 | -0.0015 | -18.5578 | -0.0250 | -9.4363 | -0.0009 | -0.5836 |
| 18 | -0.0208 | -23.7536 | -0.0025 | -32.0468 | -0.0458 | -17.2538 | -0.0034 | -2.2674 |
| 19 | 0.0027 | 3.1005 | -0.0023 | -28.5646 | -0.0431 | -16.2334 | -0.0055 | -3.6778 |
| 20 | -0.0055 | -6.3509 | -0.0024 | -30.6303 | -0.0486 | -18.3235 | -0.0076 | -5.1343 |

Above Table 4.1 shows the Pakistan Super league first season effects on the stock prices of Habib Bank Limited. Above statistical results obtained by using the Market Model according to the Timeline for the study developed by the Scholar. The table shows the Timeline figures in the first column and then Abnormal returns following the Average abnormal returns, Cumulative abnormal returns, and Cumulative average abnormal returns along with their *t*-statistics in each next column.

This table shows insignificant and negative results for the pre-event windows while significant results in post-event windows during 9 days for the Average abnormal returns, Cumulative Average abnormal returns and Cumulative Average abnormal returns starting from (t+2) till (t+9) in the Timeline. The study observed positive AARs on day (t+2) of 0.0108% at t-stat of 136.1448, on the 3rd day (t+3) 0.0022% at t-stat 27.7834, and on the 4th day consecutively (t+4) decreasing positive returns of 0.0009% at t-tats 11.1221. This positive increase and decrease for nine days in the post-event windows have also occurred for CARs and CAARs. The positive upward trend observed in the post-event windows from day +4 to day +2 and then random positive increase-decrease returns from day +9 to day +4. Still, no positive returns observed in the whole pre-event for any given windows studied therein. It shows that the investors and sponsors are greatly concerned with the PSL first season in the window mentioned above. It is also worth mentioning that HBL stocks give more positive abnormal returns in the post-event window than the pre-event windows as the AARs and CARs and CAARs show negative returns.

Table 4.2: Second season of HBL-PSL 2017

| Time | AR | <i>t</i>-AR | AAR | <i>t</i>-AAR | CAR | <i>t</i>-CAR | CAAR | <i>t</i>-CAAR |
|-------------|-----------|--------------------|------------|---------------------|------------|---------------------|-------------|----------------------|
| -20 | 0.0041 | 5.4100 | 0.0041 | 64.1253 | 0.0041 | 0.8291 | 0.0041 | 1.2164 |
| -19 | -0.0134 | -17.6742 | -0.0047 | -72.6836 | -0.0093 | -1.8795 | -0.0026 | -0.7706 |
| -18 | -0.0139 | -18.2281 | -0.0077 | -120.4751 | -0.0232 | -4.6731 | -0.0095 | -2.7991 |
| -17 | -0.0036 | -4.7285 | -0.0067 | -104.3680 | -0.0268 | -5.3977 | -0.0138 | -4.0792 |
| -16 | -0.0123 | -16.2202 | -0.0078 | -121.9460 | -0.0391 | -7.8835 | -0.0188 | -5.5766 |
| -15 | -0.0090 | -11.7851 | -0.0080 | -124.9031 | -0.0481 | -9.6896 | -0.0237 | -7.0166 |
| -14 | -0.0165 | -21.7239 | -0.0092 | -143.8446 | -0.0646 | -13.0189 | -0.0296 | -8.7429 |
| -13 | -0.0093 | -12.2439 | -0.0092 | -144.0049 | -0.0739 | -14.8953 | -0.0351 | -10.3818 |
| -12 | 0.0026 | 3.4093 | -0.0079 | -123.5143 | -0.0713 | -14.3729 | -0.0391 | -11.5713 |
| -11 | 0.0063 | 8.3088 | -0.0065 | -101.3145 | -0.0650 | -13.0995 | -0.0417 | -12.3361 |
| -10 | 0.0167 | 22.0076 | -0.0044 | -68.3898 | -0.0482 | -9.7267 | -0.0423 | -12.5120 |

| | | | | | | | | |
|-----------|---------|----------|---------|----------|---------|----------|---------|----------|
| -9 | 0.0233 | 30.7124 | -0.0021 | -32.3544 | -0.0249 | -5.0199 | -0.0408 | -12.0831 |
| -8 | -0.0042 | -5.5384 | -0.0022 | -34.9153 | -0.0291 | -5.8687 | -0.0399 | -11.8159 |
| -7 | -0.0108 | -14.2051 | -0.0028 | -44.4481 | -0.0399 | -8.0457 | -0.0399 | -11.8151 |
| -6 | -0.0109 | -14.2810 | -0.0034 | -52.7697 | -0.0508 | -10.2343 | -0.0407 | -12.0285 |
| -5 | -0.0040 | -5.2183 | -0.0034 | -53.3374 | -0.0547 | -11.0341 | -0.0415 | -12.2885 |
| -4 | 0.0103 | 13.5458 | -0.0026 | -40.7553 | -0.0444 | -8.9581 | -0.0417 | -12.3387 |
| -3 | -0.0015 | -2.0016 | -0.0026 | -39.8092 | -0.0459 | -9.2649 | -0.0419 | -12.4084 |
| -2 | 0.0070 | 9.2075 | -0.0020 | -31.9699 | -0.0389 | -7.8538 | -0.0418 | -12.3618 |
| -1 | 0.0001 | 0.0717 | -0.0019 | -30.3289 | -0.0389 | -7.8428 | -0.0416 | -12.3191 |
| 1 | -0.0003 | -0.4513 | -0.0003 | -5.3491 | -0.0003 | -0.0692 | -0.0003 | -0.1015 |
| 2 | -0.0061 | -7.9733 | -0.0032 | -49.9283 | -0.0064 | -1.2911 | -0.0034 | -0.9979 |
| 3 | 0.0181 | 23.7753 | 0.0039 | 60.6510 | 0.0117 | 2.3526 | 0.0016 | 0.4853 |
| 4 | 0.0036 | 4.7326 | 0.0038 | 59.5123 | 0.0153 | 3.0779 | 0.0050 | 1.4929 |
| 5 | 0.0186 | 24.4346 | 0.0068 | 105.5346 | 0.0338 | 6.8226 | 0.0108 | 3.1963 |
| 6 | -0.0004 | -0.5792 | 0.0056 | 86.8014 | 0.0334 | 6.7338 | 0.0146 | 4.3102 |
| 7 | -0.0059 | -7.7165 | 0.0039 | 61.3350 | 0.0275 | 5.5512 | 0.0164 | 4.8580 |
| 8 | 0.0016 | 2.1641 | 0.0036 | 56.8745 | 0.0292 | 5.8829 | 0.0180 | 5.3296 |
| 9 | 0.0019 | 2.4348 | 0.0034 | 53.7618 | 0.0310 | 6.2560 | 0.0195 | 5.7573 |
| 10 | -0.0035 | -4.6136 | 0.0028 | 42.9171 | 0.0275 | 5.5490 | 0.0203 | 5.9957 |
| 11 | -0.0229 | -30.0868 | 0.0004 | 6.5956 | 0.0047 | 0.9381 | 0.0188 | 5.5757 |
| 12 | -0.0028 | -3.6857 | 0.0002 | 2.4054 | 0.0019 | 0.3732 | 0.0174 | 5.1567 |
| 13 | 0.0076 | 9.9934 | 0.0007 | 11.3320 | 0.0094 | 1.9047 | 0.0168 | 4.9750 |
| 14 | 0.0104 | 13.6345 | 0.0014 | 22.0662 | 0.0198 | 3.9943 | 0.0170 | 5.0382 |
| 15 | -0.0006 | -0.7601 | 0.0013 | 19.9945 | 0.0192 | 3.8778 | 0.0172 | 5.0817 |
| 16 | -0.0124 | -16.2634 | 0.0004 | 6.6967 | 0.0069 | 1.3854 | 0.0165 | 4.8911 |
| 17 | -0.0047 | -6.1424 | 0.0001 | 2.0201 | 0.0022 | 0.4440 | 0.0157 | 4.6417 |
| 18 | -0.0205 | -27.0327 | -0.0010 | -15.8932 | -0.0183 | -3.6989 | 0.0138 | 4.0823 |
| 19 | -0.0084 | -11.0938 | -0.0014 | -21.9775 | -0.0268 | -5.3990 | 0.0117 | 3.4506 |
| 20 | -0.0049 | -6.5119 | -0.0016 | -24.7380 | -0.0317 | -6.3970 | 0.0095 | 2.8088 |

Above Table 4.2 shows the PSL 2nd season following 2016, indicating insignificant and negative AARs, CARs and CAARs for the pre-event windows while significant results in post-event windows during nine days for the AARs, CARs starting from day +3 to day +11 in the Timeline. While increasing significant positive returns for all the CAARs windows ranges from day +5 to day +11. The study has observed increasing significant positive CAARs on the day (t+5) of 0.0108% at t-stat of 3.1963, on the day (+6) 0.0146% at t-stat 4.3102 and the day (t+7) positive returns of 0.0164% at t-tats 4.8580. It is consistently significant, and increasing positive returns for CAARs are from day +5 until +11 in this table. This positive increase and decrease for nine days in the post-event windows have also occurred for CARs and CAARs. A positive upward trend observed in the post-event windows from day +4 to day +2. Then random positive increase-decrease returns from day +9 to day +4, but no positive returns followed in the whole pre-event for any given windows studied therein. It shows that the investors and

sponsors are greatly concerned with the PSL second season in the window mentioned above. It is also worth mentioning that HBL stocks give more positive abnormal returns in the post-event window for AARs, CARs. The authors reported more consistent increasing significant positive returns for CAARS than the pre-event windows AARs along with CARs, and CAARS shows negative returns.

Table 4.3: Third Season of HBL-PSL 2018

| Time | AR | t-AR | AAR | t-AAR | CAR | t-CAR | CAAR | t-CAAR |
|-------------|-----------|-------------|------------|--------------|------------|--------------|-------------|---------------|
| -20 | -0.0031 | -3.0952 | -0.0031 | -28.1596 | -0.0031 | -3.0998 | -0.0031 | -34.1588 |
| -19 | -0.0257 | -25.3670 | -0.0144 | -129.4726 | -0.0289 | -28.5049 | -0.0160 | -174.1352 |
| -18 | 0.0106 | 10.4752 | -0.0061 | -54.5476 | -0.0182 | -18.0140 | -0.0168 | -182.2588 |
| -17 | -0.0338 | -33.3087 | -0.0130 | -116.6702 | -0.0520 | -51.3726 | -0.0256 | -278.2201 |
| -16 | -0.0027 | -2.6991 | -0.0110 | -98.2474 | -0.0548 | -54.0758 | -0.0314 | -341.7544 |
| -15 | 0.0168 | 16.5973 | -0.0063 | -56.7062 | -0.0379 | -37.4536 | -0.0325 | -353.5824 |
| -14 | -0.0062 | -6.0783 | -0.0063 | -56.5052 | -0.0441 | -43.5410 | -0.0342 | -371.6139 |
| -13 | -0.0013 | -1.3074 | -0.0057 | -50.9288 | -0.0454 | -44.8503 | -0.0356 | -386.9410 |
| -12 | -0.0051 | -4.9917 | -0.0056 | -50.3160 | -0.0505 | -49.8494 | -0.0372 | -404.9830 |
| -11 | 0.0023 | 2.2433 | -0.0048 | -43.2434 | -0.0482 | -47.6027 | -0.0383 | -416.9408 |
| -10 | 0.0063 | 6.2283 | -0.0038 | -34.1609 | -0.0419 | -41.3651 | -0.0387 | -420.4758 |
| -9 | -0.0109 | -10.7757 | -0.0044 | -39.4839 | -0.0528 | -52.1570 | -0.0398 | -433.3318 |
| -8 | 0.0275 | 27.0903 | -0.0020 | -17.4879 | -0.0254 | -25.0261 | -0.0387 | -421.2122 |
| -7 | 0.0421 | 41.4804 | 0.0012 | 10.7171 | 0.0167 | 16.5165 | -0.0348 | -378.1253 |
| -6 | 0.0133 | 13.1017 | 0.0020 | 17.9491 | 0.0300 | 29.6378 | -0.0304 | -331.1440 |
| -5 | 0.0142 | 14.0091 | 0.0028 | 24.7931 | 0.0442 | 43.6679 | -0.0258 | -280.3724 |
| -4 | 0.0043 | 4.2529 | 0.0029 | 25.6107 | 0.0486 | 47.9272 | -0.0214 | -232.8130 |
| -3 | -0.0139 | -13.7167 | 0.0019 | 17.2550 | 0.0346 | 34.1900 | -0.0183 | -198.9479 |
| -2 | -0.0070 | -6.8511 | 0.0015 | 13.0663 | 0.0277 | 27.3286 | -0.0159 | -172.6270 |
| -1 | 0.0144 | 14.1502 | 0.0021 | 18.8498 | 0.0420 | 41.5000 | -0.0130 | -141.1300 |
| 1 | -0.0082 | -8.0971 | -0.0082 | -73.6665 | -0.0082 | -8.1093 | -0.0082 | -89.3606 |
| 2 | -0.0142 | -14.0136 | -0.0112 | -100.5802 | -0.0224 | -22.1439 | -0.0153 | -166.6885 |
| 3 | -0.0122 | -12.0402 | -0.0115 | -103.5667 | -0.0346 | -34.2022 | -0.0218 | -236.7566 |
| 4 | 0.0173 | 17.0257 | -0.0043 | -38.9508 | -0.0174 | -17.1510 | -0.0207 | -224.8164 |
| 5 | -0.0200 | -19.6845 | -0.0075 | -66.9781 | -0.0373 | -36.8650 | -0.0240 | -261.1004 |
| 6 | -0.0128 | -12.6071 | -0.0084 | -74.9313 | -0.0501 | -49.4910 | -0.0284 | -308.4786 |
| 7 | 0.0060 | 5.8948 | -0.0063 | -56.5655 | -0.0442 | -43.5874 | -0.0306 | -333.0266 |
| 8 | 0.0309 | 30.5017 | -0.0017 | -14.8072 | -0.0132 | -13.0399 | -0.0284 | -309.3601 |
| 9 | -0.0011 | -1.0926 | -0.0016 | -14.2665 | -0.0143 | -14.1342 | -0.0269 | -292.2926 |
| 10 | -0.0040 | -3.9821 | -0.0018 | -16.4627 | -0.0184 | -18.1223 | -0.0260 | -283.0333 |
| 11 | -0.0053 | -5.2519 | -0.0022 | -19.3098 | -0.0237 | -23.3820 | -0.0258 | -280.7266 |
| 12 | -0.0021 | -2.0809 | -0.0021 | -19.2783 | -0.0258 | -25.4661 | -0.0258 | -280.7181 |
| 13 | -0.0190 | -18.7160 | -0.0034 | -30.8934 | -0.0448 | -44.2101 | -0.0273 | -296.5995 |
| 14 | -0.0004 | -0.4282 | -0.0032 | -28.9650 | -0.0452 | -44.6389 | -0.0285 | -310.5496 |

| | | | | | | | | |
|-----------|---------|----------|---------|----------|---------|----------|---------|-----------|
| 15 | 0.0098 | 9.7055 | -0.0024 | -21.1474 | -0.0354 | -34.9189 | -0.0290 | -315.4990 |
| 16 | -0.0185 | -18.2677 | -0.0034 | -30.2130 | -0.0539 | -53.2140 | -0.0306 | -332.4300 |
| 17 | -0.0238 | -23.4557 | -0.0046 | -40.9885 | -0.0777 | -76.7048 | -0.0333 | -362.5961 |
| 18 | 0.0037 | 3.6543 | -0.0041 | -36.8643 | -0.0740 | -73.0450 | -0.0356 | -387.1699 |
| 19 | -0.0071 | -7.0011 | -0.0043 | -38.2764 | -0.0811 | -80.0566 | -0.0380 | -413.2235 |
| 20 | 0.0016 | 1.6261 | -0.0040 | -35.6229 | -0.0795 | -78.4280 | -0.0401 | -435.7744 |

Above Table 4.3 shows the Market Model results of PSL 3rd season following the year of 2017 indicates insignificant and negative AARs, CARs and CAARs for the post-event windows. While significant results in pre-event windows during nine windows for the AARs, CARs starting from day -1 to day -7 in the Timeline. However, the increasing significant positive returns trend for the all the CARs windows ranges from day -2 to day -4 following a decreasing positive returns trend from day -5 to day -7. The study observed increasing significant positive CARs on the day (t-2) of 0.0277% at t-stat of 27.3286, on the day (-3) 0.0346% at t-stat 34.1900 and on the day (t-4) positive returns of 0.0486% at t-tats 47.9272. This positive increase and decrease for seven days in the pre-event windows have also occurred for AARs. The positive upward trend observed in the pre-event windows from day -2 to day -4 and then random positive decrease returns from day -5 to day -7. Still, no significant positive returns observed in the whole post-event for any given windows studied therein. It shows that the investors and sponsors greatly concerned with the PSL second season in the windows mentioned above. The authors also reported that HBL stocks give more random positive abnormal returns in the pre-event window for AARs but more consistently increase significant positive returns for CARs than the post-event windows showing negative returns for AARs, CARs, and CAARs.

Table 4.4: Fourth Season of HBL-PSL 2019

| Time | AR | t-AR | AAR | t-AAR | CAR | t-CAR | CAAR | t-CAAR |
|-------------|-----------|-------------|------------|--------------|------------|--------------|-------------|---------------|
| -20 | 0.0014 | 1.5971 | 0.0014 | 13.2268 | 0.0014 | 1.6004 | 0.0014 | 13.0709 |
| -19 | -0.0119 | -13.6451 | -0.0053 | -49.8907 | -0.0105 | -12.0729 | -0.0046 | -42.7673 |
| -18 | 0.0205 | 23.4749 | 0.0033 | 31.5456 | 0.0100 | 11.4505 | 0.0003 | 2.6623 |
| -17 | 0.0135 | 15.4811 | 0.0059 | 55.7126 | 0.0235 | 26.9635 | 0.0061 | 57.0529 |
| -16 | 0.0166 | 18.9427 | 0.0080 | 75.9467 | 0.0401 | 45.9454 | 0.0129 | 120.6940 |
| -15 | 0.0156 | 17.8136 | 0.0093 | 87.8776 | 0.0556 | 63.7958 | 0.0200 | 187.4203 |
| -14 | 0.0094 | 10.7008 | 0.0093 | 87.9841 | 0.0650 | 74.5187 | 0.0264 | 247.5932 |
| -13 | -0.0010 | -1.1283 | 0.0080 | 75.8180 | 0.0640 | 73.3881 | 0.0311 | 291.5686 |
| -12 | -0.0109 | -12.5090 | 0.0059 | 55.8827 | 0.0531 | 60.8532 | 0.0336 | 314.3963 |
| -11 | -0.0007 | -0.8091 | 0.0052 | 49.6244 | 0.0524 | 60.0424 | 0.0354 | 331.9963 |
| -10 | -0.0076 | -8.7458 | 0.0041 | 38.5283 | 0.0447 | 51.2785 | 0.0363 | 339.8891 |
| -9 | 0.0028 | 3.2294 | 0.0040 | 37.5464 | 0.0475 | 54.5146 | 0.0372 | 348.6690 |
| -8 | -0.0122 | -13.9545 | 0.0027 | 25.7682 | 0.0353 | 40.5313 | 0.0371 | 347.3128 |

| | | | | | | | | |
|----|---------|----------|---------|----------|---------|----------|---------|-----------|
| -7 | -0.0095 | -10.8430 | 0.0018 | 17.5132 | 0.0259 | 29.6659 | 0.0363 | 339.8116 |
| -6 | 0.0005 | 0.6113 | 0.0018 | 16.6832 | 0.0264 | 30.2784 | 0.0356 | 333.6441 |
| -5 | -0.0060 | -6.8739 | 0.0013 | 12.0824 | 0.0204 | 23.3903 | 0.0347 | 324.7313 |
| -4 | -0.0065 | -7.4829 | 0.0008 | 7.7262 | 0.0139 | 15.8920 | 0.0334 | 313.2646 |
| -3 | -0.0246 | -28.1838 | -0.0006 | -5.6707 | -0.0108 | -12.3501 | 0.0310 | 290.2572 |
| -2 | 0.0049 | 5.5545 | -0.0003 | -2.9510 | -0.0059 | -6.7841 | 0.0290 | 272.0643 |
| -1 | 0.0078 | 8.9554 | 0.0001 | 0.9049 | 0.0019 | 2.1899 | 0.0277 | 259.3553 |
| 1 | -0.0037 | -4.2405 | -0.0037 | -35.1199 | -0.0037 | -4.2493 | -0.0037 | -34.7060 |
| 2 | 0.0022 | 2.5541 | -0.0007 | -6.9833 | -0.0015 | -1.6899 | -0.0026 | -24.2540 |
| 3 | 0.0081 | 9.2460 | 0.0022 | 20.8694 | 0.0066 | 7.5752 | 0.0005 | 4.4541 |
| 4 | -0.0003 | -0.3762 | 0.0016 | 14.8731 | 0.0063 | 7.1982 | 0.0019 | 18.0384 |
| 5 | 0.0138 | 15.7922 | 0.0040 | 38.0565 | 0.0201 | 23.0230 | 0.0056 | 52.0388 |
| 6 | -0.0090 | -10.3467 | 0.0018 | 17.4319 | 0.0110 | 12.6549 | 0.0065 | 60.5921 |
| 7 | -0.0240 | -27.4482 | -0.0018 | -17.5334 | -0.0129 | -14.8500 | 0.0037 | 34.6094 |
| 8 | 0.0039 | 4.4569 | -0.0011 | -10.7277 | -0.0091 | -10.3839 | 0.0021 | 19.6819 |
| 9 | -0.0191 | -21.8901 | -0.0031 | -29.6794 | -0.0282 | -32.3192 | -0.0013 | -11.8346 |
| 10 | 0.0065 | 7.4250 | -0.0022 | -20.5621 | -0.0217 | -24.8788 | -0.0033 | -30.9709 |
| 11 | -0.0152 | -17.3996 | -0.0034 | -31.7931 | -0.0369 | -42.3144 | -0.0064 | -59.5738 |
| 12 | -0.0154 | -17.5921 | -0.0044 | -41.2851 | -0.0523 | -59.9429 | -0.0102 | -95.4079 |
| 13 | 0.0067 | 7.6378 | -0.0035 | -33.2434 | -0.0456 | -52.2893 | -0.0129 | -120.9205 |
| 14 | -0.0041 | -4.7211 | -0.0036 | -33.6618 | -0.0497 | -57.0201 | -0.0155 | -145.5484 |
| 15 | 0.0266 | 30.4416 | -0.0015 | -14.6099 | -0.0231 | -26.5156 | -0.0160 | -150.2829 |
| 16 | -0.0157 | -17.9250 | -0.0024 | -22.9752 | -0.0388 | -44.4776 | -0.0175 | -163.5946 |
| 17 | 0.0075 | 8.6105 | -0.0018 | -17.4289 | -0.0313 | -35.8493 | -0.0183 | -171.1949 |
| 18 | -0.0004 | -0.4854 | -0.0018 | -16.6839 | -0.0317 | -36.3358 | -0.0190 | -178.1714 |
| 19 | -0.0017 | -2.0006 | -0.0018 | -16.6779 | -0.0334 | -38.3405 | -0.0198 | -185.2753 |
| 20 | 0.0109 | 12.5190 | -0.0011 | -10.6599 | -0.0225 | -25.7956 | -0.0199 | -186.5458 |

Table 4.4 provides the statistical result of Market Model for PSL 4th season following the year of 2019 indicates significant and positive AARs, CARs from the day -4 until day -18 in the pre-event windows while significant positive returns for CAARs starting from the day (t-1) until day (t-18) in the pre-event windows. The study has observed an increasing positive significant CAARs on day (t-1) of 0.0277% at t-stat of 259.3553, on day (-2) 0.0290% at t-stat 272.0643 and on the day (t-3) positive returns of 0.0310% at t-tats 290.2572. This positive increase in CAAR from day -1 until day -9 and decreases from day -10 until day -18.

Again, the positive upward trend observed in the pre-event windows from the day -1 to day -18. It shows that the investors and sponsors greatly concerned with the PSL fourth season played in 2019. It is also worth mentioning that HBL stocks give more random positive abnormal returns in the pre-event window for AARs, CARs and more consistently increasing significant positive returns for CAARs. There were also significant positive returns in the post-event windows but starting from day +3 until day +6.

Table 4.5: First-time Sponsorship announcement of PSL by HBL in 2015

| Time | AR | <i>t</i>-AR | AAR | <i>t</i>-AAR | CAR | <i>t</i>-CAR | CAAR | <i>t</i>-CAAR |
|-------------|-----------|--------------------|------------|---------------------|------------|---------------------|-------------|----------------------|
| -20 | 0.0009 | 0.9865 | 0.0009 | 14.1596 | 0.0009 | 0.2537 | 0.0009 | 0.7562 |
| -19 | -0.0108 | -11.8501 | -0.0050 | -77.9624 | -0.0099 | -2.7935 | -0.0045 | -3.7855 |
| -18 | 0.0247 | 27.0320 | 0.0049 | 77.3555 | 0.0148 | 4.1577 | 0.0019 | 1.6075 |
| -17 | 0.0198 | 21.6609 | 0.0086 | 135.7418 | 0.0345 | 9.7278 | 0.0101 | 8.4550 |
| -16 | 0.0192 | 21.0823 | 0.0108 | 169.1125 | 0.0538 | 15.1491 | 0.0188 | 15.7955 |
| -15 | 0.0196 | 21.4162 | 0.0122 | 192.1584 | 0.0733 | 20.6562 | 0.0279 | 23.4253 |
| -14 | 0.0089 | 9.7822 | 0.0118 | 184.7650 | 0.0823 | 23.1717 | 0.0357 | 29.9463 |
| -13 | 0.0017 | 1.8403 | 0.0105 | 164.9711 | 0.0840 | 23.6449 | 0.0417 | 35.0133 |
| -12 | -0.0074 | -8.1477 | 0.0085 | 133.6470 | 0.0765 | 21.5498 | 0.0456 | 38.2604 |
| -11 | -0.0010 | -1.0969 | 0.0076 | 118.7080 | 0.0755 | 21.2677 | 0.0486 | 40.7741 |
| -10 | -0.0044 | -4.7847 | 0.0065 | 101.6732 | 0.0711 | 20.0373 | 0.0506 | 42.4972 |
| -9 | 0.0081 | 8.8910 | 0.0066 | 103.8348 | 0.0793 | 22.3236 | 0.0530 | 44.5011 |
| -8 | -0.0038 | -4.1555 | 0.0058 | 91.2595 | 0.0755 | 21.2550 | 0.0547 | 45.9517 |
| -7 | -0.0113 | -12.3615 | 0.0046 | 72.0677 | 0.0642 | 18.0763 | 0.0554 | 46.5183 |
| -6 | -0.0024 | -2.5819 | 0.0041 | 64.7926 | 0.0618 | 17.4123 | 0.0558 | 46.8773 |
| -5 | -0.0135 | -14.7969 | 0.0030 | 47.4693 | 0.0483 | 13.6073 | 0.0554 | 46.4826 |
| -4 | -0.0161 | -17.6377 | 0.0019 | 29.7856 | 0.0322 | 9.0718 | 0.0540 | 45.3391 |
| -3 | -0.0200 | -21.9168 | 0.0007 | 10.6545 | 0.0122 | 3.4360 | 0.0517 | 43.3892 |
| -2 | 0.0040 | 4.3407 | 0.0009 | 13.3728 | 0.0162 | 4.5521 | 0.0498 | 41.8198 |
| -1 | 0.0072 | 7.8760 | 0.0012 | 18.3564 | 0.0234 | 6.5774 | 0.0485 | 40.7091 |
| 0 | 0.0022 | 25.3539 | 0.0022 | 34.8111 | 0.0465 | 13.0972 | 0.0484 | 40.6297 |
| 1 | -0.0080 | -8.7503 | -0.0080 | -125.5941 | -0.0080 | -2.2501 | -0.0080 | -6.7074 |
| 2 | 0.0011 | 1.1742 | -0.0035 | -54.3705 | -0.0069 | -1.9482 | -0.0075 | -6.2574 |
| 3 | 0.0051 | 5.6340 | -0.0006 | -9.2920 | -0.0018 | -0.4994 | -0.0056 | -4.6678 |
| 4 | 0.0023 | 2.5422 | 0.0001 | 2.1532 | 0.0005 | 0.1543 | -0.0040 | -3.3859 |
| 5 | 0.0065 | 7.1349 | 0.0014 | 22.2041 | 0.0071 | 1.9890 | -0.0018 | -1.5229 |
| 6 | -0.0054 | -5.9249 | 0.0003 | 4.3301 | 0.0017 | 0.4655 | -0.0012 | -1.0378 |
| 7 | -0.0126 | -13.7891 | -0.0016 | -24.5622 | -0.0109 | -3.0804 | -0.0026 | -2.2013 |
| 8 | -0.0035 | -3.7986 | -0.0018 | -28.3071 | -0.0144 | -4.0572 | -0.0041 | -3.4379 |
| 9 | -0.0174 | -19.0562 | -0.0035 | -55.5524 | -0.0318 | -8.9575 | -0.0072 | -6.0227 |
| 10 | 0.0012 | 1.3045 | -0.0031 | -48.1247 | -0.0306 | -8.6220 | -0.0095 | -7.9906 |
| 11 | -0.0210 | -22.9840 | -0.0047 | -73.7399 | -0.0516 | -14.5323 | -0.0133 | -11.2023 |
| 12 | -0.0156 | -17.1006 | -0.0056 | -88.0487 | -0.0672 | -18.9297 | -0.0178 | -14.9710 |
| 13 | -0.0026 | -2.8658 | -0.0054 | -84.4399 | -0.0698 | -19.6667 | -0.0218 | -18.3290 |
| 14 | -0.0040 | -4.4034 | -0.0053 | -82.9229 | -0.0738 | -20.7990 | -0.0255 | -21.4483 |
| 15 | 0.0154 | 16.9094 | -0.0039 | -61.2146 | -0.0584 | -16.4508 | -0.0277 | -23.2876 |
| 16 | -0.0118 | -12.8930 | -0.0044 | -68.9546 | -0.0702 | -19.7662 | -0.0304 | -25.5147 |
| 17 | -0.0028 | -3.0925 | -0.0043 | -67.5094 | -0.0730 | -20.5615 | -0.0329 | -27.6192 |
| 18 | 0.0035 | 3.8430 | -0.0039 | -60.6946 | -0.0695 | -19.5732 | -0.0349 | -29.3262 |
| 19 | 0.0085 | 9.3464 | -0.0032 | -50.4396 | -0.0610 | -17.1698 | -0.0363 | -30.4765 |

Above table 4.5 shows the results for ARs, AARs, CARs and CAARs during the first-time title sponsorship announcement for PSL by HBL in 2015. There are significant positive stock prices returns on the day HBL is announcing the first-time title sponsorship as the t-statistics for ARs, AARs, CARs, and CAARs is greater than 1.96. In addition, there are significant positive returns for all the AARs, CARs, and CAARs in the pre-event window (before the announcement) of title sponsorship. Hence, we may say a significant positive influence of the first time title sponsorship on the stock prices on the event day of title sponsorship announcement and pre-event windows from day -1 until day -18.

Table 4.6: PSL Renewal announcement of Sponsorship by HBL in 2018

| Time | AR | t-AR | AAR | t-AAR | CAR | t-CAR | CAAR | t-CAAR |
|-------------|-----------|-------------|------------|--------------|------------|--------------|-------------|---------------|
| -20 | -0.0250 | -29.7038 | -0.0250 | -247.5984 | -0.0250 | -4.9197 | -0.0250 | -21.0188 |
| -19 | -0.0213 | -25.3992 | -0.0232 | -229.6580 | -0.0463 | -9.1264 | -0.0356 | -30.0052 |
| -18 | 0.0177 | 21.0579 | -0.0095 | -94.5953 | -0.0286 | -5.6387 | -0.0333 | -28.0337 |
| -17 | -0.0099 | -11.7904 | -0.0096 | -95.5164 | -0.0385 | -7.5915 | -0.0346 | -29.1337 |
| -16 | -0.0021 | -2.5447 | -0.0081 | -80.6555 | -0.0407 | -8.0130 | -0.0358 | -30.1539 |
| -15 | -0.0561 | -66.7685 | -0.0161 | -159.9721 | -0.0968 | -19.0715 | -0.0460 | -38.7084 |
| -14 | 0.0188 | 22.4273 | -0.0111 | -110.4125 | -0.0779 | -15.3570 | -0.0505 | -42.5516 |
| -13 | 0.0212 | 25.2038 | -0.0071 | -70.3499 | -0.0567 | -11.1826 | -0.0513 | -43.2047 |
| -12 | 0.0416 | 49.5192 | -0.0017 | -16.6697 | -0.0151 | -2.9810 | -0.0473 | -39.8192 |
| -11 | 0.0038 | 4.5278 | -0.0011 | -11.2285 | -0.0113 | -2.2311 | -0.0437 | -36.7905 |
| -10 | -0.0111 | -13.1481 | -0.0020 | -20.1711 | -0.0224 | -4.4087 | -0.0418 | -35.1583 |
| -9 | 0.0106 | 12.5577 | -0.0010 | -9.7672 | -0.0118 | -2.3289 | -0.0393 | -33.0576 |
| -8 | 0.0036 | 4.3078 | -0.0006 | -6.2538 | -0.0082 | -1.6154 | -0.0369 | -31.0456 |
| -7 | -0.0082 | -9.7892 | -0.0012 | -11.6356 | -0.0164 | -3.2367 | -0.0354 | -29.8158 |
| -6 | -0.0077 | -9.1566 | -0.0016 | -15.9483 | -0.0241 | -4.7533 | -0.0347 | -29.1819 |
| -5 | -0.0073 | -8.6568 | -0.0020 | -19.4615 | -0.0314 | -6.1871 | -0.0345 | -29.0101 |
| -4 | -0.0180 | -21.4691 | -0.0029 | -28.8436 | -0.0494 | -9.7429 | -0.0353 | -29.7522 |
| -3 | 0.0003 | 0.3998 | -0.0027 | -27.0560 | -0.0491 | -9.6767 | -0.0361 | -30.3961 |
| -2 | 0.0006 | 0.7202 | -0.0026 | -25.3160 | -0.0485 | -9.5574 | -0.0368 | -30.9454 |
| -1 | 0.0123 | 14.6025 | -0.0018 | -17.9642 | -0.0362 | -7.1388 | -0.0367 | -30.9231 |
| 0 | 0.0347 | 41.2602 | -0.0001 | -0.7312 | -0.0015 | -0.3051 | -0.0351 | -29.5127 |
| 1 | -0.0153 | -18.2629 | -0.0008 | -7.6176 | -0.0169 | -3.3299 | -0.0342 | -28.8178 |
| 2 | -0.0085 | -10.0991 | -0.0011 | -10.9465 | -0.0254 | -5.0026 | -0.0338 | -28.4941 |
| 3 | -0.0036 | -4.2459 | -0.0012 | -11.9651 | -0.0290 | -5.7058 | -0.0336 | -28.3226 |
| 4 | -0.0239 | -28.4290 | -0.0021 | -20.9653 | -0.0528 | -10.4143 | -0.0344 | -28.9695 |
| 5 | 0.0015 | 1.8296 | -0.0020 | -19.5724 | -0.0513 | -10.1113 | -0.0351 | -29.5168 |
| 6 | 0.0185 | 21.9891 | -0.0012 | -12.0589 | -0.0328 | -6.4694 | -0.0350 | -29.4472 |
| 7 | 0.0237 | 28.1438 | -0.0003 | -3.2498 | -0.0092 | -1.8080 | -0.0341 | -28.6714 |

| | | | | | | | | |
|-----------|---------|----------|---------|---------|---------|---------|---------|----------|
| 8 | -0.0057 | -6.8069 | -0.0005 | -5.0943 | -0.0149 | -2.9354 | -0.0334 | -28.1152 |
| 9 | 0.0134 | 15.9385 | 0.0000 | -0.4959 | -0.0015 | -0.2956 | -0.0323 | -27.2201 |
| 10 | -0.0150 | -17.8972 | -0.0005 | -5.2923 | -0.0165 | -3.2598 | -0.0318 | -26.7913 |
| 11 | 0.0025 | 2.9242 | -0.0004 | -4.3652 | -0.0141 | -2.7755 | -0.0313 | -26.3247 |
| 12 | 0.0129 | 15.4070 | 0.0000 | -0.3412 | -0.0011 | -0.2237 | -0.0304 | -25.5559 |
| 13 | -0.0056 | -6.6791 | -0.0002 | -1.9686 | -0.0067 | -1.3299 | -0.0297 | -24.9714 |
| 14 | 0.0065 | 7.6755 | 0.0000 | -0.0844 | -0.0003 | -0.0587 | -0.0288 | -24.2651 |
| 15 | -0.0086 | -10.2767 | -0.0002 | -2.4616 | -0.0089 | -1.7608 | -0.0283 | -23.8000 |
| 16 | 0.0094 | 11.1891 | 0.0000 | 0.1257 | 0.0005 | 0.0924 | -0.0275 | -23.1461 |
| 17 | -0.0077 | -9.1898 | -0.0002 | -1.8935 | -0.0073 | -1.4297 | -0.0270 | -22.6977 |
| 18 | -0.0112 | -13.2782 | -0.0005 | -4.6829 | -0.0184 | -3.6289 | -0.0267 | -22.5133 |
| 19 | 0.0054 | 6.4792 | -0.0003 | -3.2156 | -0.0130 | -2.5557 | -0.0264 | -22.2234 |
| 20 | 0.0010 | 1.1862 | -0.0003 | -2.8960 | -0.0120 | -2.3593 | -0.0260 | -21.9272 |

Table 4.6 shows the results of ARs, AARs, CARs and CAARs on the day of the announcement for renewal of sponsorship by HBL on the 14th day of November in 2018. This table also provides results for pre and post-event windows produced by applying the market model. This result indicates that there is no significant and positive impact of the sponsorship renewal on the stock prices of Habib Bank, Limited. In addition, neither found significant positive returns in the pre-event windows nor the post-event windows during the renewal announcement of the sponsorships for the PSL by HBL in 2018.

CONCLUISON, RECOMMEDNATIONS, AND FUTURE DIRECTIONS

Conclusion

This study examines the association between the title sponsorship and its influence on the stock prices behaviour of the sponsoring firm of HBL in the context of the Pakistan Super League. This study focused on finding the positive, negative and no changes in the stock prices of the sponsoring firms after title sponsorship announcements. In order to know the overall significance of the study, it is found in Table 4.5 that after announcing the first time title sponsorship, the HBL stock prices on the announcement day along with the pre-event windows has shown significant positive returns for ARs, AARs, CARs and CAARs during the windows starting from day -18 till day -1 and therefore the alternate hypothesis 2 is accepted. This result is in line with the results of (Clark et al., 2009; Kudo et al., 2015), But in Table 4.6, the scholars observed no significant positive returns on the day, before the day of renewal and after the renewal of sponsorship announcement of the stock prices of the sponsoring firm of HBL in Pakistan. Therefore, alternate hypothesis 2 rejected. This result is consistent with the results (Mazodier & Rezaee, 2013; Kruger et al., 2014). Based on accepting hypothesis 1 and rejecting hypothesis 2, the authors concluded that hypothesis 3 is alternatively accepted. There are different results for the first-time title

sponsorship announcement and renewal of title sponsorships. Meanwhile, the previous four seasons of PSL have shown different effects during the sports event days, as shown in Table 4.1. However, there were significant positive returns in the pre-event windows.

In contrast, insignificant positive returns noticed in the post-event windows for the given market model components of AARs, CARs and CAARs. For example, the second season of PSL depicted in Table 4.2 shows significant positive increasing returns in post-event windows starting from day +4 to day +11 but no positive returns in the pre-event windows. Table 4.3 shows significant positive returns in the post-event windows for only seven days but no positive returns in the pre-event windows. Table 4.4 of this study reveals significant positive returns in the pre-event windows for eighteen days while four days positive returns have shown in the post-event windows. The authors concluded that hypothesis 4 is accepted as HBL-SPL Sports events contributed positive changes in the stock prices of the HBL during all four events of the Pakistan Super League.

Recommendations

Concerning the previous results of the market model, the scholars suggest the competent authorities hold successful the upcoming seasons of the PSL and place PSL on the top of all the t-20 league crickets around the world; the following suggestions should be incorporated during the policies preparation:

The PCB must focus on the opening ceremony to attract spectators, investors and sponsors nationally and internationally. Moreover, It will be in the greater interest of the PCB to make successful the t-20 PSL cricket in Pakistan by arranging all the matches only on the soil of Pakistan. To develop and maintain the confidence of the investors and prospecting sponsors in the country, PSL must be brought wholly to Pakistan in the future. At the same time, To be PSL more attractive, more teams and franchises should be added to the PSL. As a result, more investment and sponsorship attention would be diverted to the upcoming t-20 PSL events, and hence, it would contribute to the stock market and economy as a whole.

Furthermore, keeping in view the future of PSL, PCB should revise policies concerning the duration and total matches played in the PSL. As a result, this Cricket scheme will be played for a more extended period; that is why the cricket junkies and investors, along with sponsors, will pay more attention to this t-20 PSL Cricket. Therefore, it will continue to attract more investment in the future. Meanwhile, if iconic international cricketers and team captains were selected to participate in the t-20 PSL scheme of Cricket, it would be far better to attract more investors and sponsors to participate in this entertainment activity of Cricket. In this regard, Oye Hoyal sponsored boundary announcements by commentators was

one particular instance that stood out along with Boom Boom Bubblegum's endorsement based commercial featuring Darren Sammy. This kind of communication will have exceptionally high consumer recall, which, I believe, is the key to any brands' victory, and there will be more amplification opportunities for more prominent brands in the future. Similarly, if HBL will pay attention to executing their marketing strategy for their brand promotion, HBL would offset the sponsorship cost that HBL paid as a fee for the title sponsorship. Thus, there would be a positive influence on the stock prices of HBL.

Future directions

Based on this paper, future researchers may study the title event sponsorships for the Indian Premier League, Bangladesh Premier League, and other t20 Cricket Leagues worldwide. Future researchers may also incorporate the moderating effect of culture in the same study. Geert Hofstede national cultural dimensions would contribute a lot to the research and the GLOBE dimensions for crosschecking.

REFERENCES

- Abuzayed, B. (2013). Sport and emerging capital markets: market reaction to the 2022 World Cup announcement. *International Journal of Islamic and Middle Eastern Finance and Management*, 6(2), 122–141. <https://doi.org/10.1108/17538391311329824>
- Agrawal, J., & Kamakura, W. A. (1995). The Economic Worth of Celebrity Endorsers: An Event Study Analysis. *Journal of Marketing*, 59(3), 56. <https://doi.org/10.2307/1252119>
- Berman, G., Brooks, R., & Davidson, S. (2002). The Sydney Olympic Games announcement and Australian stock market reaction. *Applied Economics Letters*, 7(12), 781–784. <https://doi.org/10.1080/135048500444796>
- Bezler, J. (2013, the 22nd day of April). The (R)evolution of Sports Sponsorship. *Forbes*. www.forbes.com/sites/jasonbelzer/2013/04/22/the-revolution-of-sport-sponsorship/#27c0536f6c90
- Bibby, D. N. (2009). Brand image, equity, and sports sponsorship. *Advances in Culture, Tourism and Hospitality Research*, 3, 21–99. [https://doi.org/10.1108/S1871-3173\(2009\)0000003006](https://doi.org/10.1108/S1871-3173(2009)0000003006)
- Blake, J., Fourie, S., & Goldman, M. (2019). The relationship between sports sponsorships and corporate financial returns in South Africa. *International Journal of Sports Marketing and Sponsorship*, 20(1), 2–25. <https://doi.org/10.1108/IJSMS-12-2016-0088>
- Clark, J. M., Cornwell, T. B., & Pruitt, S. W. (2009). The impact of title event sponsorship announcements on shareholder wealth. *Marketing Letters*, 20(2), 169–182. <https://doi.org/10.1007/s11002-008-9064-z>
- Cornwell, T. B., Pruitt, S. W., & Clark, J. M. (2005). The Relationship Between Major-League Sports' Official Sponsorship Announcements and the Stock Prices of Sponsoring Firms. *Journal of the Academy of Marketing Science*, 33(4), 401–412. <https://doi.org/10.1177/0092070305277385>
- Cornwell, T. B., Pruitt, S. W., & Van Ness, R. (2001). The value of winning in motorsports: Sponsorship-linked marketing. *Journal of Advertising Research*, 41(1), 17–31.

<https://doi.org/10.2501/JAR-41-1-17-31>

- Crompton, J. L. (2004). Conceptualization and alternate operationalizations of the measurement of sponsorship effectiveness in sport. *Leisure Studies*, 23(3), 267–281.
<https://doi.org/10.1080/0261436042000183695>
- D Foust, B. G. (2002). The PGA Tour: Where's the Green? *Business Week Online*.
- Dick, C. D., & Wang, Q. (2010). The economic impact of the Olympic Games: Evidence from stock markets. *Applied Economics Letters*, 17(9), 861–864.
<https://doi.org/10.1080/13504850802552291>
- Dolphin, R. R. (2003). Sponsorship: Perspectives on its strategic role. In *Corporate Communications: An International Journal* (Vol. 8, Issue 3, pp. 173–186). MCB UP Ltd.
<https://doi.org/10.1108/13563280310487630>
- Edeling, A., Hattula, S., & Bornemann, T. (2017). Over, out, but present: recalling former sponsorships. *European Journal of Marketing*, 51(7/8), 1286–1307. <https://doi.org/10.1108/EJM-05-2015-0263>
- Fama, E. F. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. *The Journal of Finance*, 25(2), 383. <https://doi.org/10.2307/2325486>
- Fatima, A., Rashid, A., & Khan, A. uz Z. (2019). Asymmetric impact of shocks on Islamic stock indices: a cross country analysis. *Journal of Islamic Marketing*, 10(1), 2–86.
<https://doi.org/10.1108/JIMA-04-2017-0043>
- Ferreira, M., Hall, T. K., & Bennett, G. (2016). Exploring Brand Positioning in a Sponsorship Context: A Correspondence Analysis of the Dew Action Sports Tour. *Journal of Sport Management*, 22(6), 734–761. <https://doi.org/10.1123/jsm.22.6.734>
- Fizel, J., & McNeil, C. R. (2017). Bowling for Dollars: Title Sponsorship of College Football Bowls. *Journal of Sports Economics*, 18(2), 162–181. <https://doi.org/10.1177/1527002514566282>
- Frame, W. S., & Farrell, K. A. (2005). The Value of Olympic Sponsorships: Who is Capturing the Gold? *SSRN Electronic Journal*, 2(2), 171–182. <https://doi.org/10.2139/ssrn.282975>
- Haug, M., & Hirschey, M. (2006). The January effect. In *Financial Analysts Journal* (Vol. 62, Issue 5, pp. 78–88). CFA Institute. <https://doi.org/10.2469/faj.v62.n5.4284>
- Hirshleifer, D., & Shumway, T. (2003). Good Day Sunshine: Stock Returns and the Weather. In *Journal of Finance* (Vol. 58, Issue 3, pp. 1009–1032). Blackwell Publishing Inc.
<https://doi.org/10.1111/1540-6261.00556>
- Hobbs, J., Schaupp, L. C., & Gingrich, J. (2016). Terrorism, militarism, and stock returns. *Journal of Financial Crime*, 23(1), 70–86. <https://doi.org/10.1108/JFC-01-2015-0002>
- Jensen, J. A., & Hsu, A. (2011). Does sponsorship pay off? An examination of the relationship between investment in sponsorship and business performance. *International Journal of Sports Marketing and Sponsorship*, 12(4), 352–364. <https://doi.org/10.1108/IJSMS-12-04-2011-B006>
- Johnston, M. A. (2010). The impact of sponsorship announcements on shareholder wealth in Australia. *Asia Pacific Journal of Marketing and Logistics*, 22(2), 156–178.
<https://doi.org/10.1108/13555851011026926>
- Kruger, T. S., Goldman, M., & Ward, M. (2014). The impact of new, renewal and termination sponsorship announcements on share price returns. *International Journal of Sports Marketing and Sponsorship*, 15(4), 10–25. <https://doi.org/10.1108/IJSMS-15-04-2014-B003>
- Kudo, M., Jae Ko, Y., Walker, M., & Connaughton, D. P. (2015). The influence of title sponsorships in sports events on stock price returns. *International Journal of Sports Marketing and Sponsorship*, 16(2), 37–56. <https://doi.org/10.1108/IJSMS-16-02-2015-B004>
- Malkiel, B. G. (2003). The efficient market hypothesis and its. *Journal of Economic Perspectives*, 17(1), 59–82. <https://doi.org/10.1257/089533003321164958>
- Mazodier, M., & Rezaee, A. (2013). Are sponsorship announcements good news for the shareholders?

- Evidence from international stock exchanges. *Journal of the Academy of Marketing Science*, 41(5), 586–600. <https://doi.org/10.1007/s11747-013-0325-x>
- McCarville, R. E., & Copeland, R. P. (2016). Understanding Sports Sponsorship through Exchange Theory. *Journal of Sport Management*, 8(2), 102–114. <https://doi.org/10.1123/jsm.8.2.102>
- Mirman, M., & Sharma, R. (2010). Stock market reaction to Olympic games announcement. *Applied Economics Letters*, 17(5), 463–466. <https://doi.org/10.1080/13504850801964349>
- Mishra, D. P., Bobinski Jr., G., & Bhabra, H. (1997). Assessing the Economic Worth of Corporate Event Sponsorships: A Stock Market Perspective. *Journal of Market-Focused Management*, 2(2), 149–169. <https://doi.org/10.1023/A:1009731419345>
- Mishra, V., & Smyth, R. (2010). An examination of the impact of India's performance in one-day cricket internationals on the Indian stock market. *Pacific-Basin Finance Journal*, 18(3), 319–334. <https://doi.org/10.1016/j.pacfin.2010.02.005>
- Miyazaki, A. D., & Morgan, A. G. (2015). Assessing the Market Value of Sponsoring: Corporate Olympic Sponsorships. *Journal of Advertising Research*, 41(1), 9–15. <https://doi.org/10.2501/jar-41-1-9-15>
- Ozturk, M. A., & Kocak, S. (2016). Impact of Sponsorship on Companies That Supported the 2002 Salt Lake City Winter Paralympics. *International Journal of Sports Marketing and Sponsorship*, 5(4), 38–51. <https://doi.org/10.1108/ijsms-05-04-2004-b005>
- Paula Gardner, M., & Shuman, P. J. (1987). Sponsorship: An important component of the promotions mix. *Journal of Advertising*, 16(1), 11–17. <https://doi.org/10.1080/00913367.1987.10673055>
- Pruitt, S. W., Cornwell, T. B., & Clark, J. M. (2004). The NASCAR phenomenon: Auto racing sponsorships and shareholder wealth. *Journal of Advertising Research*, 44(3), 281–296. <https://doi.org/10.1017/S0021849904040279>
- Rex, J., & Homans, G. C. (2007). Social Behaviour, Its Elementary Forms. *The British Journal of Sociology*, 13(1), 75. <https://doi.org/10.2307/587952>
- Samitas, A., Kenourgios, D., & Zounis, P. (2008). Athens' Olympic Games 2004 impact on sponsors' stock returns. *Applied Financial Economics*, 18(19), 1569–1580. <https://doi.org/10.1080/09603100701720336>
- Seif, M., Docherty, P., & Shamsuddin, A. (2017). Seasonal anomalies in advanced emerging stock markets. *The Quarterly Review of Economics and Finance*, 66, 169–181. <https://doi.org/10.1016/J.QREF.2017.02.009>
- Sell, J., & Martin, M. W. (1983). The effects of group benefits and type of distribution rule on noncompliance to legitimate authority. *Social Forces*, 61(4), 1168–1185. <https://doi.org/10.1093/sf/61.4.1168>
- Simon, H. A. (2002). Rationality in Psychology and Economics. *The Journal of Business*, 59(S4), S209. <https://doi.org/10.1086/296363>
- Spais, G. S., & Filis, G. N. (2008). Measuring stock market reaction to sponsorship announcements: The case of Fiat and Juventus. *Journal of Targeting, Measurement and Analysis for Marketing*, 16(3), 169–180. <https://doi.org/10.1057/jt.2008.13>
- The Economist. (2008). *Sponsorship form - A survey of the business of sport*. <https://www.economist.com/special-report/2008/07/31/sponsorship-form>
- The Weekly Pakistan. (2019). *PSL signs new sponsorship deal with HBL | The Weekly Pakistan*. <https://www.theweeklypakistan.com/2018/11/18/psl-signs-new-title-sponsorship-deal-with-hbl/>
- Yang, G. J. A., Lee, C., & Lee, C. H. (2015). Random Walk in the MIST. *Journal of Asia-Pacific Business*, 16(2), 92–104. <https://doi.org/10.1080/10599231.2015.1028303>