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Mohit Saini, Shallu Batra, Mahender Yadav, Vaibhav Aggarwal, Narender Verma

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Sponsoring an event and stock return: Vivo IPL to Tata IPL

Mohit Saini, Shallu Batra* and Mahender Yadav

Department of Commerce, Maharshi Dayanand University, Rohtak, Haryana, India Email: mohits09990@gmail.com Email: shallubatra682@gmail.com Email: mahinder.comm@mdurohtak.ac.in *Correspondence author

Vaibhav Aggarwal

O.P. Jindal Global University, Sonipat, Haryana, India Email: vaibhavapj@gmail.com

Narender Verma

Evalueserve Private Limited, Gurugram, Haryana, India Email: narendervrm_11@yahoo.com

Abstract: Title sponsorship of the Indian Premier League 2022–2023 has been given to Tata Group (an Indian Corporate Giant). The main aim of this study is to investigate the impact of the event on each of the listed entities within the Tata Group and identify which among them is the most reactive to this event. The closing prices of 17 stocks and the market index were collected from the Prowess database. The event study methodology was used to study the objective. The study employed the 21 days event window and 224 days estimation window to estimate the returns. The results indicate that Tata Communication Ltd. and Indian Hotels Co. Ltd. have a significant positive abnormal return on the event day. Overall, the average abnormal return of all stocks was found to be significantly positive on the next day of the event. The findings indicate that the market was optimistic regarding the communication and hospitality segment of the Tata Group during the IPL tournament.

Keywords: Indian premier league; stock return; event study; Tata Group.

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Biographical notes: Mohit Saini is a Research Scholar in the Department of Commerce at Maharshi Dayanand University, Haryana, India. He has several research papers accepted in esteemed journals, which are listed in Scopus,

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ABDC-B and UGC Care. He has presented his research articles at conferences organised by prestigious institutions such as SEBI, NISM, IIM Nagpur and IIM Bodhgaya. Before his research career, he worked with two multinational corporations: Jones Lang LaSalle (JLL) and Tata Consultancy Services (TCS). Also, he taught as an Assistant Professor at the University of Delhi. He completed his Bachelor in Commerce (Hons) and Master in Commerce both from the University of Delhi.

Shallu Batra is working in the field of Finance. Currently, she is pursuing PhD in the Department of Commerce at Maharshi Dayanand University, Haryana, India. She has several research papers accepted in esteemed journals, which are listed in Scopus, Australian Business Deans Council (ABDC) and Chartered Association of Business Schools (CABS). She has also completed her Bachelor in Commerce (Hons) and Master in Commerce both from Maharshi Dayanand University.

Mahender Yadav is an Assistant Professor in the Department of Commerce, Maharshi Dayanand University, Haryana, India. He completed his PhD in the area of the Indian Stock Market from GJUS&T, India. He has several research papers on stock market volatility in various journals of high repute. He has presented his research articles at numerous conferences organised by reputed institutions such as IIM Indore and Haryana School of Business.

Vaibhav Aggarwal is a Faculty in the Accounting & Finance area at O.P. Jindal Global University, Haryana. He has a rich experience of more than 12 years with a blend of both Industry and Academia. His research interests are majorly in financial markets, and he has published several research papers in reputed journals listed in Scopus, ABDC and ABS. His teaching interests include Equity Valuation, Financial Modelling, Corporate Finance and Financial Derivatives. He has completed the Doctoral Program from the Indian Institute of Management, Lucknow. He did Graduation from Delhi University and Completed MBA (Finance) degree from Apeejay Institute of Management. Further, to enhance his domain expertise in the World of Finance, he completed all three Chartered Financial Analyst (CFA) program levels and obtained the charter, which is considered the gold standard in the investment industry. Also, he has passed the UGC-NET (Management) exam.

Narender Verma is an Experienced Professional in the field of Corporate Finance and Valuation. He had primarily worked with Bulge Bracket Investment Banks and US-based Private Equity Firms. Currently, he is working as Lead Analyst at Evalueserve. Prior to Evalueserve, he worked as Consultant with National Financial Reporting Authority, Govt. of India. He completed his PhD from Amity University Haryana and holds MBA from GGSIPU, New Delhi.

1 Introduction

A growing body of literature has gained much attention on the relationship between investors' emotions and finance (Hiremath et al., 2019). The standard finance theory is based on the concept that investors behave rationally and are free from sentiment. However, contrary to this, emotions and mood swings impact the stock market prices in behavioural finance. The country's economy can be disturbed by many economic (Justinek, 2022, 2023a, 2023b) and non-economic factors. Researchers propounded that

investors' mood swings due to changes in non-economic events such as weather conditions (Hirshleifer and Shumway, 2003), daylight (Kamstra et al., 2000), temperature (Cao and Wei, 2005) and lunar cycles (Yuan et al., 2006) which influence the stock market returns. Justinek (2023b) also discussed the recent economic events which impact product prices. Sports events are a non-economic phenomenon; the sentiments of viewers cum investors are influenced by the team's win or loss, which affects the investment decision and, ultimately, the stock market (Gkillas et al., 2020; Truong et al., 2021).

Cricket is the worldwide famous game after football (Lakshman and Akhter, 2013). 'Over time, the game of cricket in India has become more than a game, morphing into a symbol of national identity' (Nair, 2011). A new form of cricket Indian Premier League (IPL), was launched in 2007 by BCCI along the lines of football's English Premier League and the National Basketball League (NBA) of the USA (Maurya, 2009). IPL operates on a franchise-based system; sponsors pay the amount to BCCI for getting to own a team (Maurya, 2009). Based on the shorter duration of T-20 games, IPL is popular with the youth generation (Sen and Kayal, 2020). Not only short format, but IPL has also gotten attention because of the enormous amount paid to the players. As per the yearly assessment of international sports salaries, IPL is the second-highest-paid League after the National Basketball Association. Aftab and Naveed (2020) also showed that the return of sponsors' teams and cricket boards is the primary reason for these professional leagues' attractiveness. Some proportion of collected revenue is retained by IPL, and the remaining is distributed to sponsors and prize money (Lakshman and Akhter, 2013).

Recently Tata Group has taken responsibility for IPL Title sponsorship. Our study aims to investigate the investors' sentiments resulting from the change in the title sponsorship of IPL. Sponsorship is a win-win situation in which each corporation pursues its own commercial goal (Jensen and Cobbs, 2014). It is a market strategy for improving the sponsor's performance, and more likely for a company to become a sponsor if it is efficient and profitable (Naidenova et al., 2016). At the beginning of 2008, IPL's first title sponsorship right was given to Real Estate developer DLF for INR 200 crore for five years (2008–2012) to sponsor the event (Narayan et al., 2016). After DLF, Pepsi became the second title sponsor of IPL in 2013. Vivo Chinese mobile manufacturing company has gained title sponsorship for 2016–2017 and renewed for the next five years (2018– 2022) by paying INR 440 crore per year. However, due to deteriorating Sino-Indian diplomatic relations in 2020, Vivo had withdrawn as an IPL sponsor and then Dreamed 11 came in as a one-year title sponsor. Vivo was represented as a title sponsor of IPL in 2021. Later, Vivo discontinued its contract with IPL and transferred its title sponsorship right to Tata for two years (2022-2023). Tata will pay INR 670 crore to BCCI for sponsorship, and in the next two years, IPL will be called 'Tata IPL'.

Changing the title sponsorship is a major sports event for people whose emotions are connected with the Indian company. As already Ullah et al. (2018) discussed that investors' emotions are connected with the country. They found that when PSL matches are not played on the domestic ground, it adversely affects the investors' mood and results in a negative return. 164-year-old Tata Group has started its operations by establishing cotton manufacturing mills introducing many initiatives like a hydroelectric power plant in India, launching the first fully Indian passenger car and establishing one of the biggest IT company (Pandey, 2020). It operates in more than 100 countries and is India's most prominent private corporate conglomerate. This study investigates the stock returns impact of getting the title sponsorship of the Indian sports tournament from the hands of a Chinese firm. We analyse the impact on the market return of companies that come under Tata group's umbrella due to the change in the title sponsorship.

The structure of the paper is as follows: Section 2 discussed the previous studies that explained how sports event impact the financial market. The study's methodology is exhibited in Section 3 and Section 4 has the analysis and interpretation of the results. The final Section 5 deals with the conclusions of the study.

2 Literature review

Behaviour Finance theory challenged the standard finance theory by claiming psychological factors impact stock prices (Stracca, 2004). Consistent with behaviour finance theory, the theoretical framework of our study showed that investors' sentiment impacts investment decisions. Ullah et al. (2018) also explained that investing in the stock market is influenced by one's mood. People in a good mood may make an optimistic judgment, while a bad mood leads to pessimistic judgment (Gkillas et al., 2020; Hiremath et al., 2019).

A strand of literature empirically tested the relationship between investor sentiment and performance of financial market. Graziano and Vicentini (2017); Payne et al., (2018) and Kaplanski et al. (2015) discussed that investors' moods happy or sad matter in the financial market and showed that non-economic components can influence the returns anticipations. A sports event, which is a non-economic phenomenon, impacts individual behaviour and the decision-making process of investors (Ullah et al., 2018). The association between sports events and stock prices rejects the effect market hypothesis because asset prices are rational; they indicate all information pertinent to their future economic prospects (Fama, 1991). A growing body of literature discussed sports events and the impact of their outcomes on the stock market. Berman et al. (2000) analysed the links between the stock market response and the news that Sydney would organise Olympic Games of 2000. The authors demonstrated that positive stock market reaction was confined to companies' stock in New South Wales State, where the event was organised. Ashton et al. (2003) explored the impact of national football team performance on stock market return. They showed that good performance positively impacts stock prices or vice-versa. Also, Fan et al. (2017) and Fan and Wang (2018) provided evidence to this statement. Truong et al. (2021) showed that investors' reaction impact stock market performance only for small-cap stocks and at the time of major tournaments.

Similarly, Berument et al. (2009) explored that the association between the success of soccer matches and stock return depends on fanaticism. Edmans et al. (2007) showed that defeat in soccer matches has a financially and statistically negative impact on stock market of losing nation. Further, Boyle and Walter (2003) investigated the impact of the New Zealand national rugby team and highlighted that there is no link between sporting team success and stock market return behaviour. Similarly, Vieira (2012) found no evidence of any relationship between football gaming results and the subsequent stock return. Gkillas et al. (2020), Hiremath et al. (2019), Mishra and Smyth (2010), Verstoep et al. (2015) and Narayan et al. (2016) contributed to the literature by extending the relationship between sports events and stock market performance, especially cricket games. Mishra and Smyth (2010) first explored the change in the stock market performance affected by the cricket match played in India; defeat in the game was strongly associated with the stock return but no significant association with the team's winning. Further, Narayan et al. (2016) drawn a sample of 22 sponsors listed in BSE stocks and found that IPL cricket did not impact the stock return of sponsors listed in BSE. Similarly, Hiremath et al. (2019) examined the impact of T-20 matches and IPL team performance on stock return. They did not find any significant relationship between the T-20 match and stock return. They also found that the win or loss of the sponsor team positively or negatively impacts the stock return, respectively. Gkillas et al. (2020) documented the effect of performance of the Indian cricket team in the one-day international cricket match on stock return and volatility. Overall, the literature showed inconclusive results on the relationship between sporting events and stock's performance. This study contributes to literature by focusing on handing over the title sponsorship of the highly esteemed sports tournament in the hands of Top Indian giant corporate, i.e., Tata Group.

3 Research methodology

3.1 Sample and data source

In the present study, the IPL title sponsorship for the 2022–2023 announcement was considered an event. The paper seeks to investigate the event's impact on the stock returns companies under the sponsor Group. For this purpose, we considered the seventeen companies of the Tata Group. The daily closing prices of all companies and Nifty 50 (proxy of market returns) were collected from the Prowess IQ managed by the Centre for Monitoring the Indian Economy.

3.2 Event study

The event study methodology is used to analyse the impact of IPL title sponsorship announcements on the stock prices of companies belonging to the sponsor Group. Sharma and Verma (2020) considered the 21 days event window, that is, ten days prior to the event and ten days after the event. We take 224 days estimation window to calculate the expected returns.

Abnormal returns capture the impact of the event when the information of the abovementioned event is announced to the markets. If AR_{ii} in equation (1) is significantly different from zero; it implies that stock prices increase due to an event. According to Syed and Bajwa (2018), abnormal returns are calculated as:

$$AR_{it} = R_{it} - E(R_{it}) \tag{1}$$

where

 AR_{it} = Abnormal-return of the stock *i* at day *t*;

 R_{it} = Actual-return for the stock *i* at day *t*;

 $E(R_{it})$ = Expected-return for the stock *i* at day *t*.

The expected return of a company, *i* at day *t*, is calculated as:

$$E(R_{it}) = \alpha_i + \beta_i R_{mt} \tag{2}$$

where

 α_i = Intercept coefficient

 β_i = Regression coefficient

 R_{mt} = Market return at day t

The computed value of the *t*-test at 5% level of significance indicates that abnormal returns arise during event window are statistically significant from zero and Title sponsorship event affects the stock price of the concerned company.

Abnormal Returns are added up to obtain Cumulative Abnormal Returns (CARs) to determine the size of abnormal returns throughout the whole event window (Saini et al., 2023).

Average Abnormal Return (AAR) is the mean of cross-sectional abnormal returns for each day in the event window which is calculated as:

$$AAR_{t} = \frac{1}{n} \sum_{i=1}^{n} AR_{ii}$$
(3)

where

 AAR_t = Average Abnormal Returns at Day t

n = number of cross-section items, i.e., companies

 AR_{it} = Abnormal return of the *i*-th company at day *t*.

Average Abnormal Returns are added together to create Cumulative Average Abnormal Returns (CAARs) (AAR).

4 Analysis and interpretation

The abnormal returns and test data of the share prices of the concerned companies within the event window of -10 and +10 days are presented in Table 1 and its subparts. The amount by which the actual return exceeds the estimated return is termed an abnormal return (alpha) (calculated with the Ordinary Least Square method). The results show that the reaction to the sponsorship announcement was positive for Indian Hotels Co. Ltd., Nelco Ltd., Tata Chemicals Ltd., Tata Communications Ltd., Tata Elxsi Ltd., Tata Power Co. Ltd., Tata Steel Ltd., Trent Ltd. and Voltas Ltd. The rest of the stocks reacted negatively. From the positive reacting bundle of stocks, the highest alpha was observed in Tata communication, i.e., 4.578%, significant at 5% level. The reason behind this positive reaction may be attributed to the business of Tata Communication Ltd. At the event date, it was announced that Tata Group would sponsor the IPL title in 2022, but nothing was mentioned about which company of Tata would sponsor the IPL title. Tata communication provides a wide range of communication and internet services in all segments such as media and entertainment, including gaming, hospitality, sports, leisure, education, news, music, cable and broadcasting. Internet communication and broadcasting are its core operations; therefore, Tata communication ltd. reacted significantly positively on the event day. The same is attributable to Nelco Ltd., which reacted with a 3.529% abnormal return.

The second-largest change was observed in the stock return of Indian Hotels Co. Ltd. It has a 4.4527% abnormal return with a 10% significance level. The IPL event will boost tourism. People will come from different parts of the world to enjoy sports tournaments. As a result, hospitality industry will see a boom in its operations.

Table 1 Abnormal returns

| Event day | v Indian Hotels Co. Ltd. | T Statistic | Nelco Ltd. | T Statistic | Tata Chemicals Ltd. | T Statistic | Tata Coffee Ltd. | T Statistic | Tata Communications Ltd. | T Statistic |
|-----------|----------------------------|------------------|----------------|-----------------|-----------------------|---------------|------------------|-------------|--------------------------|------------------|
| -10 | -0.0043363 | -0.1733553 | 0.023233 | 0.63999 | -0.0076737 | -0.3372124 | -0.0058971 | -0.2146838 | 0.0148032 | 0.6935015 |
| 6- | -0.028763 | -1.1498859 | -0.0143084 | -0.3941484 | -0.0201267 | -0.8844509 | -0.0152401 | -0.5548135 | -0.0031992 | -0.1498779 |
| -8 | 0.0110002 | 0.4397677 | 0.0157138 | 0.4328627 | -0.0006815 | -0.0299468 | 0.0126333 | 0.4599137 | 0.0410213 | 1.9217632^{*} |
| L | -0.0004774 | -0.0190847 | -0.0245067 | -0.6750765 | 0.0015729 | 0.0691194 | -0.0109545 | -0.3987982 | -0.022854 | -1.0706606 |
| 9- | -0.0100121 | -0.4002627 | -0.0198862 | -0.5477961 | -0.0195024 | -0.857015 | 0.0067284 | 0.2449448 | -0.0235024 | -1.1010386 |
| -5 | -0.0219484 | -0.8774539 | 0.0373318 | 1.0283645 | -0.0031396 | -0.1379653 | -0.0214078 | -0.7793495 | 0.0506781 | 2.3741623^{**} |
| 4 | 0.0351131 | 1.4037516 | 0.0030585 | 0.0842502 | -0.0016815 | -0.0738918 | 0.0021064 | 0.0766848 | -0.0094245 | -0.4415175 |
| -3 | -0.0065669 | -0.2625296 | -0.0191732 | -0.5281578 | 0.0189279 | 0.83177 | -0.0087987 | -0.3203144 | -0.0155669 | -0.7292787 |
| -2 | 0.0305466 | 1.2211917 | 0.0036267 | 0.0999024 | -0.0016651 | -0.0731733 | 0.0003604 | 0.0131216 | 0.008325 | 0.39001 |
| Ξ | 0.0079893 | 0.3193962 | 0.0412355 | 1.1358981 | 0.0292598 | 1.2857959 | 0.0060336 | 0.2196522 | -0.0069481 | -0.3255064 |
| 0 | 0.044527 | 1.7801027^{*} | 0.0352976 | 0.9723289 | 0.0090206 | 0.3964013 | -0.0073183 | -0.2664221 | 0.045789 | 2.1451195** |
| 1 | 0.0069534 | 0.2779839 | -0.0246143 | -0.6780404 | 0.0162609 | 0.7145699 | -0.0030817 | -0.1121881 | -0.0102957 | -0.4823335 |
| 2 | 0.0001085 | 0.0043373 | 0.0443882 | 1.2227446 | 0.0128277 | 0.5637022 | 0.005251 | 0.1911637 | -0.0011447 | -0.0536284 |
| 3 | -0.0125538 | -0.5018741 | 0.0413013 | 1.1377096 | -0.0046789 | -0.2056123 | 0.0008965 | 0.0326369 | 0.0014616 | 0.0684721 |
| 4 | 0.0034827 | 0.1392329 | -0.0445823 | -1.228092 | -0.0116396 | -0.5114919 | -0.0093067 | -0.3388079 | -0.0386523 | 1.8107823^{*} |
| 5 | 0.0104936 | 0.4195149 | -0.0193039 | -0.5317572 | 0.0156723 | 0.688707 | 0.0059964 | 0.2182978 | 0.0297059 | 1.3916611 |
| 9 | 0.0201443 | 0.8053292 | 0.0548629 | 1.5112876 | -0.002938 | -0.1291082 | 0.0146216 | 0.5322977 | -0.0450383 | 2.1099506^{**} |
| 7 | -0.0069193 | -0.2766199 | -0.0407133 | -1.1215132 | -0.0258093 | -1.1341669 | 0.003818 | 0.1389933 | -0.0500889 | 2.3465631^{**} |
| 8 | -0.0257466 | -1.0292992 | -0.0277518 | -0.7644677 | -0.0254457 | -1.1181871 | -0.0335801 | -1.2224785 | -0.0468021 | 2.1925829** |
| 6 | 0.0037772 | 0.1510057 | -0.028677 | -0.7899555 | -0.0030031 | -0.1319704 | 0.0101608 | 0.3699027 | -0.0058695 | -0.2749739 |
| 10 | 0.0243932 | 0.9751913 | -0.0221521 | -0.610214 | 0.0009821 | 0.0431553 | 0.011937 | 0.434566 | -0.0068169 | -0.3193571 |
| Notes: * | *** Significant at 1% leve | el, ** Significa | ant at 5% leve | il, * Significa | nt at 10% level; Auth | iors' own con | npilation. | | | |

Significant at 1% level, ** Significant at 5% level, * Significant at 10% level; Authors' own compilation.

| Event d_{i} | ty Tata Consultancy Services Ltd. | T Statistic | Tata Consumer Products Ltd. | T Statistic | Tata Elxsi Ltd. | T Statistic | Tata Investment Corpn. Ltd. | T Statistic | Tata Metaliks Ltd. | T Statistic |
|---------------|--------------------------------------|------------------|--------------------------------|-------------------|------------------|------------------|--------------------------------|------------------|--------------------|-------------|
| -10 | -0.0026882 | -0.2336635 | 1.731E-05 | 0.0013474 | 0.0297335 | 1.3735389 | -0.0073724 | -0.4151494 | 0.0068598 | 0.2524521 |
| 6 | 0.0106598 | 0.9265516 | 0.0018741 | 0.1459049 | 0.0163814 | 0.7567362 | -0.0045984 | -0.2589405 | -0.0018559 | -0.0683015 |
| -8 | -0.0044868 | -0.389995 | 0.0144488 | 1.1249067 | 0.0030352 | 0.1402126 | 0.0016311 | 0.0918475 | -0.0133426 | -0.4910281 |
| L | 0.0109582 | 0.9524865 | -0.0053132 | -0.4136593 | -0.0047698 | -0.2203392 | 0.0301547 | 1.6980375^{*} | -0.0082781 | -0.3046463 |
| 9– | 0.0107609 | 0.9353395 | -0.0198887 | -1.5484353 | 0.0073611 | 0.3400449 | -0.0083477 | -0.4700653 | 0.0069514 | 0.2558205 |
| -5 | -0.0106143 | -0.922595 | -0.0122833 | -0.956312 | -0.0076722 | -0.3544175 | 0.000653 | 0.0367732 | 0.0123924 | 0.4560589 |
| 4 | -0.0077866 | -0.6768102 | -0.0044084 | -0.3432161 | -0.0133626 | -0.6172828 | -0.0016534 | -0.093107 | 0.0028404 | 0.1045324 |
| 3 | 0.0094301 | 0.819669 | 0.0115242 | 0.8972196 | -0.0167403 | -0.7733183 | -0.001077 | -0.0606497 | 0.001851 | 0.0681179 |
| -2 | -0.000144 | -0.0125194 | -0.0136637 | -1.0637875 | 0.025777 | 1.1907685 | 0.0288019 | 1.6218603 | 0.0398109 | 1.4651018 |
| Γ | 0.0071944 | 0.6253424 | 0.0067332 | 0.5242128 | -0.0127814 | -0.5904352 | -0.0138369 | -0.7791672 | -0.0124088 | -0.4566642 |
| 0 | -0.0200895 | 1.7461888^{*} | -0.0099736 | -0.7764928 | 0.0229369 | 1.0595698 | -0.0049304 | -0.2776342 | -0.0032113 | -0.1181806 |
| 1 | 0.0080066 | 0.6959385 | -0.0101986 | -0.7940118 | 0.0424569 | 1.9612975^{**} | 0.0112488 | 0.6334328 | 0.0071124 | 0.2617452 |
| 2 | 0.0177237 | 1.5405508 | 0.0429834 | 3.3464683*** | -0.0165141 | -0.7628702 | 0.0400207 | 2.2536026^{**} | -0.03931 | -1.4466674 |
| 3 | 0.0107451 | 0.9339695 | 0.0009894 | 0.0770259 | 0.0098719 | 0.4560306 | 0.0027748 | 0.1562538 | -0.0081113 | -0.2985092 |
| 4 | -0.0005464 | -0.0474938 | -0.0377489 | 2.9389409*** | -0.0012449 | -0.0575096 | -0.0219105 | -1.2338017 | -0.0093093 | -0.3425975 |
| 5 | -0.0132812 | -1.1544102 | -0.0125441 | -0.9766211 | 0.091795 | 4.2404677*** | 0.0006895 | 0.0388265 | 0.0003177 | 0.0116913 |
| 9 | -0.0165268 | -1.4365126 | 0.0148896 | 1.1592257 | 0.0648642 | 2.9963984*** | 0.006087 | 0.3427654 | 0.0127891 | 0.470658 |
| 7 | 0.006619 | 0.5753259 | 0.0095126 | 0.7406057 | -0.0304473 | -1.4065141 | 0.0145265 | 0.8179993 | -0.0064844 | -0.2386355 |
| 8 | 0.0005202 | 0.0452203 | -0.0307675 | -2.3954004^{**} | -0.0133202 | -0.6153271 | -0.0176512 | -0.9939569 | 0.0059206 | 0.2178873 |
| 6 | -0.0053407 | -0.4642184 | 0.0176019 | 1.3703955 | 0.0138137 | 0.6381214 | -2.297E-05 | -0.0012936 | -0.0141584 | -0.5210493 |
| 10 | -0.0265478 | 2.3075465** | 0.0040062 | 0.3119002 | -0.0272191 | -1.2573857 | 0.0219644 | 1.2368364 | -0.0115951 | -0.4267184 |
| Notes: | *** Significant at 1%1 | evel, ** Signifi | cant at 5% level, * | Significant at | 10% level; Autho | rs' own compil | ation. | | | |

Table 1Abnormal returns (continued)

| Tata Motors Ltd. | T Statistic | Tata Power Co. Ltd. | T Statistic | Tata Steel Long Products Ltd. | T Statistic | |
|------------------|-------------|---------------------|----------------|-------------------------------|-------------------|----|
| -0.0076475 | -0.3085845 | -0.0114318 | -0.4326528 | 0.0038606 | 0.1830468 | |
| -0.0117379 | -0.4736375 | -0.0075489 | -0.2856998 | -0.00262 | -0.1242214 | |
| 0.0086956 | 0.3508744 | -0.0041012 | -0.1552168 | 0.0042038 | 0.1993166 | |
| 0.0022472 | 0.0906747 | -0.0148406 | -0.5616642 | 0.0009953 | 0.0471916 | |
| -0.0353011 | -1.4244325 | -0.0051417 | -0.1945966 | -0.0050706 | -0.2404155 | |
| -0.0126541 | -0.5106065 | -0.025531 | -0.9662562 | 0.0091863 | 0.4355552 | `` |
| 0.0152922 | 0.6170567 | 0.0331557 | 1.2548241 | 0.0081814 | 0.3879064 | |
| -0.0040769 | -0.1645052 | -0.0028954 | -0.1095792 | 0.120287 | 5.7032276*** | |
| 0.0063469 | 0.2561037 | -0.0103266 | -0.3908254 | 0.0049115 | 0.2328731 | |
| -0.0109049 | -0.4400241 | -0.0017488 | -0.0661868 | -0.0487545 | -2.3116205^{**} | |
| -0.0046037 | -0.1857619 | 0.003888 | 0.1471467 | -0.0033774 | -0.1601354 | |
| 0.0038417 | 0.1550181 | 0.0243095 | 0.9200285 | 0.0204605 | 0.9701042 | |
| -0.0047204 | -0.1904738 | -0.0068501 | -0.2592504 | -0.0258391 | -1.2251206 | |
| 0.0231367 | 0.9335894 | 0.0065265 | 0.2470059 | -0.0093845 | -0.444954 | |
| -0.0091133 | -0.3677291 | -0.0237419 | -0.8985464 | -0.0451387 | -2.1401848** | |
| 0.0359574 | 1.4509184 | 0.0492786 | 1.865019^{*} | -0.015012 | -0.7117707 | |
| 0.0073885 | 0.2981343 | 0.0120099 | 0.4545304 | -0.0142434 | -0.6753287 | |
| -0.0139476 | -0.5628012 | -0.0191826 | -0.7259952 | -0.0088952 | -0.4217542 | |
| -0.0003491 | -0.0140882 | -0.0168871 | -0.6391159 | 0.0142715 | 0.6766611 | |
| 0.0106364 | 0.4291879 | 0.02531 | 0.9578932 | -0.0068749 | -0.3259645 | |
| 0.0244172 | 0.9852593 | 0.0201975 | 0.7644042 | 0.0014222 | 0.067432 | |

Table 1 Abnormal returns (continued)

Event day -10 -9

8-L-

 $\tilde{\mathbf{n}}$

*** Significant at 1% level, ** Significant at 5% level, * Significant at 10% level; Authors' own compilation.

Notes:

| T Statistic | -0.2484929 | -0.1132976 | 0.5084526 | -0.2321917 | -0.0064993 | -0.2202738 | 0.592935 | 0.7959308 | -1.4961535 | -0.5255067 | 0.8571194 | -0.3850959 | 1.5685716 | -1.0484157 | -0.5084072 | 0.1765098 | 0.5225955 | -2.6694487^{***} | 1.3308178 | -0.2849155 | 0.2809039 | |
|--------------------|------------|------------|------------|------------|------------|------------|-----------|------------|------------|------------------|------------|-----------------|------------|------------|------------|-----------|------------|--------------------|------------------|-------------------|-------------------|-------------------------|
| Voltas Ltd. | -0.0040031 | -0.0018252 | 0.0081909 | -0.0037405 | -0.0001047 | -0.0035485 | 0.0095519 | 0.0128221 | -0.0241023 | -0.0084657 | 0.0138078 | -0.0062037 | 0.0252689 | -0.0168895 | -0.0081902 | 0.0028435 | 0.0084188 | -0.0430035 | 0.0214388 | -0.0045898 | 0.0045252 | |
| T Statistic | 0.1561581 | -0.3226416 | 1.1086041 | -1.2442765 | -0.4466647 | 0.3484918 | 0.8125638 | -0.0075295 | -1.1555201 | 1.9886853^{**} | 0.7246999 | 1.4632216 | -0.8486358 | -0.4850763 | -0.2234754 | 1.3699021 | 0.4749857 | 0.7826457 | -1.5474566 | -2.3635858^{**} | -2.3759549^{**} | |
| Trent Ltd. | 0.0030734 | -0.00635 | 0.0218186 | -0.0244888 | -0.0087909 | 0.0068587 | 0.0159922 | -0.0001482 | -0.022742 | 0.0391397 | 0.0142629 | 0.0287979 | -0.0167022 | -0.0095469 | -0.0043983 | 0.0269613 | 0.0093483 | 0.0154034 | -0.0304558 | -0.0465182 | -0.0467616 | own compilation. |
| T Statistic | 0.5973008 | 0.8992208 | 1.6066633 | -1.0185106 | 0.790052 | -0.675447 | 1.0468678 | -0.9010155 | 1.3609035 | -0.3653807 | -1.6213659 | -0.0808649 | -0.7357012 | -0.1404924 | 0.6674278 | 0.233566 | -0.0644488 | -0.5086459 | -1.6931091^{*} | -1.2737487 | -1.3138165 | 10% level; Authors' |
| Titan Company Ltd. | 0.0091803 | 0.0138207 | 0.0246939 | -0.0156542 | 0.0121428 | -0.0103814 | 0.01609 | -0.0138483 | 0.0209166 | -0.0056158 | -0.0249199 | -0.0012429 | -0.0113075 | -0.0021593 | 0.0102581 | 0.0035898 | -0.000906 | -0.0078177 | -0.0260225 | -0.0195771 | -0.0201929 | level, * Significant at |
| T Statistic | -0.4451151 | -0.6565364 | -0.2009758 | 0.1770062 | -0.4756635 | 0.6318973 | 0.0380201 | -0.4242665 | -0.4206974 | -1.8032532^{*} | 0.0520723 | 2.64145^{***} | -0.3393133 | 0.356114 | -0.6776206 | 1.1399252 | 0.4977978 | -0.9704213 | -1.1407725 | -0.1438281 | -0.2856827 | * Significant at 5% |
| Tata Steel Ltd. | -0.009696 | -0.0143015 | -0.0043779 | 0.0038558 | -0.0103615 | 0.0137647 | 0.0008282 | -0.0092419 | -0.0091641 | -0.0392806 | 0.0011343 | 0.0575392 | -0.0073913 | 0.0077573 | -0.0147607 | 0.0248312 | 0.0108436 | -0.0211389 | -0.0248497 | -0.003133 | -0.0062231 | ificant at 1% level, *; |
| Event day | -10 | 6- | 8- | L | 9- | -5 | 4 | ςĴ | -2 | -1 | 0 | 1 | 2 | С | 4 | 5 | 9 | 7 | 8 | 6 | 10 | Notes: *** Signi |

 Table 1
 Abnormal returns (continued)

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In Table 2, we analysed CAR for event day (-10 to +10), (-5 to +5), (-3 to +3), (-1 to +1), (+1 to +3), (+1 to +5) and (+1 to +10). Indian Hotels Co. Ltd. stock has a positive CAR of 0.05947 with a 10% significance level for the event window (-1 to +1). Nelco Ltd. maintained CAR of 0.12206 for 3 days after the event, as shown in the event window (-3 to +3) at a 10% significance level. Apart from these, Tata Elxsi Ltd. has significant CAR in (-10 to +10), (-5 to +5) and (+1 to +10) window. Its significant CAR is more attributable to the digital revolution than to the IPL sponsorship event, as this company has more to do with digital solutions for business firms than end-customer solutions. It is noteworthy that on the 10th day after the event, the CAR is negative for most of the stocks. This result is more to do with the external rumours regarding the Federal Reserve interest rate changes.

The Average Abnormal Return (AAR) and Cumulative Average Abnormal Return (CAAR) during the Event Window of -10 to +10 days are depicted graphically in Figure 1. The study discovered a significant positive AAR (0.010079) on the next day of the event, as well as a positive AAR (0.006602) on the event day. Table 3 denotes that the highest AAR is after the five days of the event, which is significant at the 5% level. From the figure, it can be said that both AAR and CAAR have risen significantly after the event. They both have a sharp decline on the fourth day and seventh day after the event, attributable to external rumours of interest rate changes and the rise in the crude oil price after the attack on Mideast Gulf countries.

Figure 1 Average abnormal returns (AARs) and cumulative average abnormal returns (CAARs) during event window (see online version for colours)



Source: Authors' own compilation.

| Event window | (-10 to +10) | (-5 to +5) | (-3 to +3) | (-I to +I) | (+3) | (+5) | (01+) |
|--------------------------------|--------------|------------|-----------------|-----------------|-----------------|------------|--------------------|
| Indian Hotels Co. Ltd. | | | | | | | |
| CAR | 0.0812056 | 0.0981453 | 0.0710042 | 0.0594698 | -0.0054918 | 0.0084845 | 0.0241333 |
| Т | 0.8727828 | 1.4574806 | 1.3217974 | 1.6910842^{*} | -0.1561662 | 0.1868843 | 0.3758778 |
| Nelco Ltd. | | | | | | | |
| CAR | 0.01438 | 0.0985657 | 0.1220617 | 0.0519188 | 0.0610752 | -0.0028111 | -0.0672423 |
| Т | 0.1144453 | 1.0838737 | 1.6825946^{*} | 1.093234 | 1.2860363 | -0.0458496 | -0.7755181 |
| Tata Chemicals Ltd. | | | | | | | |
| CAR | -0.023461 | 0.0791644 | 0.0799528 | 0.0545412 | 0.0244096 | 0.0284424 | -0.0277717 |
| Т | -0.2671624 | 1.2455842 | 1.576971 | 1.6432502 | 0.7354275 | 0.6637737 | -0.4582912 |
| Tata Coffee Ltd. | | | | | | | |
| CAR | -0.0350415 | -0.0292687 | -0.0066571 | -0.0043664 | 0.0030659 | -0.0002444 | 0.0067129 |
| Т | -0.3599738 | -0.4154376 | -0.1184494 | -0.1186753 | 0.0833279 | -0.0051455 | 0.0999334 |
| Tata Communications Ltd. | | | | | | | |
| CAR | -0.0944196 | 0.0539272 | 0.0216201 | 0.0285451 | -0.0099789 | -0.0189253 | -0.1735411 |
| Т | -1.221698 | 0.9641022 | 0.4845283 | 0.9771981 | -0.3416115 | -0.5018445 | -3.2539708^{***} |
| Tata Consultancy Services Ltd. | | | | | | | |
| CAR | -0.0154344 | 0.000638 | 0.0328664 | -0.0048885 | 0.0364754 | 0.0226478 | -0.0186283 |
| Т | -0.2978669 | 0.0170117 | 1.0986185 | -0.2496066 | 1.8624445^{*} | 0.8957449 | -0.520974 |
| Tata Consumer Products Ltd. | | | | | | | |
| CAR | -0.0322094 | -0.0385904 | 0.0283943 | -0.013439 | 0.0337741 | -0.0165189 | -0.0012761 |
| Т | -0.5765854 | -0.9544942 | 0.8803833 | -0.6364965 | 1.5996078 | -0.6060196 | -0.0331043 |

Table 2Cumulative abnormal returns (CAR)

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 Table 2
 Cumulative abnormal returns (CAR) (continued)

| Event window | $(-10 \ to \ +10)$ | (-5 to +5) | (-3 to +3) | (-I to + I) | (+3) | (+2) | (01+) |
|-------------------------------|--------------------|-------------|------------|-----------------|------------------|-------------------|------------------|
| Tata Elxsi Ltd. | | | | | | | |
| CAR | 0.1839548 | 0.1245222 | 0.0550069 | 0.0526125 | 0.0358147 | 0.1263648 | 0.1340559 |
| Т | 2.3727671** | 2.2192395** | 1.2289151 | 1.7954851^{*} | 1.2222331 | 3.3403701^{***} | 2.5057608^{**} |
| Tata Investment Corpn. Ltd. | | | | | | | |
| CAR | 0.0771514 | 0.0407805 | 0.0630019 | -0.0075184 | 0.0540443 | 0.0328233 | 0.057727 |
| Τ | 1.1281627 | 0.8239366 | 1.5956671 | -0.2908726 | 2.0908709^{**} | 0.9836381 | 1.2232544 |
| Tata Metaliks Ltd. | | | | | | | |
| CAR | -0.0312197 | -0.0080261 | -0.0142673 | -0.0085078 | -0.040309 | -0.0493006 | -0.0628288 |
| Τ | -0.3185677 | -0.113159 | -0.2521586 | -0.2296882 | -1.0882375 | -1.0309793 | -0.9290549 |
| Tata Motors Ltd. | | | | | | | |
| CAR | 0.0229033 | 0.0385018 | 0.0090195 | -0.0116668 | 0.022258 | 0.0491022 | 0.0772476 |
| Т | 0.2251984 | 0.5230712 | 0.1536067 | -0.3035066 | 0.5790317 | 0.9894464 | 1.1006795 |
| Tata Power Co. Ltd. | | | | | | | |
| CAR | 0.0244479 | 0.0460645 | 0.0129032 | 0.0264487 | 0.023986 | 0.0495226 | 0.0709703 |
| Τ | 0.2415737 | 0.6289096 | 0.2208336 | 0.6914503 | 0.6270678 | 1.0028515 | 1.0162352 |
| Tata Steel Long Products Ltd. | | | | | | | |
| CAR | 0.0025698 | 0.0155205 | 0.0583035 | -0.0316714 | -0.0147631 | -0.0749138 | -0.0892337 |
| Т | 0.0317041 | 0.2645645 | 1.245858 | -1.0337827 | -0.4818809 | -1.8940855^{*} | -1.5953333 |
| Tata Steel Ltd. | | | | | | | |
| CAR | -0.0533658 | 0.0260163 | 0.0013529 | 0.0193929 | 0.0579051 | 0.0679756 | 0.0234746 |
| Т | -0.6037466 | 0.4066771 | 0.0265098 | 0.5804745 | 1.7332364^{*} | 1.5760477 | 0.3848572 |

| Event window | (-10 to +10) | (-5 to + 5) | (-3 to +3) | $(-I \ to + I)$ | (+3) | (+5) | (0I+) |
|--|--------------------------|------------------------|-----------------------|-----------------|------------|------------|-----------------|
| Titan Company Ltd. | | | | | | | |
| CAR | -0.0490376 | -0.0186204 | -0.038177 | -0.0317785 | -0.0147097 | -0.0008617 | -0.0754625 |
| Т | -0.7506629 | -0.393838 | -1.0122267 | -1.2870577 | -0.5957548 | -0.027033 | -1.674004^{*} |
| Trent Ltd. | | | | | | | |
| CAR | -0.0352462 | 0.0784753 | 0.0330613 | 0.0822005 | 0.0025489 | 0.0251119 | -0.0738719 |
| Т | -0.4686376 | 1.441687 | 0.7613873 | 2.8916676*** | 0.0896657 | 0.684273 | -1.4233565 |
| Voltas Ltd. | | | | | | | |
| CAR | -0.0177988 | -0.0031057 | -0.0037624 | -0.0008616 | 0.0021758 | -0.003171 | -0.0163815 |
| Т | -0.2655929 | -0.0640321 | -0.0972409 | -0.0340153 | 0.0858982 | -0.0969707 | -0.3542334 |
| Notes: *** Significant at 1% level, ** S | Significant at 5% level, | , * Significant at 10% | level; Authors' own c | ompilation. | | | |

 Table 2
 Cumulative abnormal returns (CAR) (continued)

| Day | AAR | T Statistic |
|-----|-----------|-----------------|
| -10 | 0.001766 | 0.618163 |
| -9 | -0.005279 | -1.832610^{*} |
| -8 | 0.008241 | 2.588380*** |
| -7 | -0.005064 | -1.510298 |
| -6 | -0.007174 | -2.192457** |
| -5 | 0.000099 | 0.020054 |
| -4 | 0.006111 | 1.846500^{*} |
| -3 | 0.004512 | 0.584961 |
| -2 | 0.005154 | 1.133513 |
| -1 | -0.001362 | -0.237414 |
| 0 | 0.006602 | 1.315935 |
| 1 | 0.010079 | 2.037082** |
| 2 | 0.003458 | 0.588965 |
| 3 | 0.002479 | 0.725095 |
| 4 | -0.015679 | -3.802716*** |
| 5 | 0.013999 | 2.074513** |
| 6 | 0.009208 | 1.533467 |
| 7 | -0.013210 | -2.706623*** |
| 8 | -0.016322 | -3.626078*** |
| 9 | -0.003321 | -0.782197 |
| 10 | -0.003157 | -0.629274 |

Table 3Average abnormal returns (AAR)

Notes: *** Significant at 1% level, ** Significant at 5% level, * Significant at 10% level; Authors' compilation.

5 Concluding remarks

Indian Premier League is the largest cricket league tournament in the world. It provides a platform for new talents in sports and other fields, such as start-ups (e.g., Dream 11). Many business firms get a platform to sponsor the event and teams. People earn and lose millions of money in the event and the stock market. Previous studies have proved a relationship between the Stock market and IPL events. Stocks of sponsor firms react positively & negatively to the winning and losing a match, respectively.

The year 2020–2021 brought many challenges before India. First, the Covid-19, Military tussle with China in Galway Valley and both these events have raised a spike in Indians boycotting Chinese products and services. In such circumstances, Vivo, a Chinese smartphone firm, was struggling with exiting from the IPL title sponsorship. Eventually, the Tata Group was aroused with an offer to take over IPL Title sponsorship from Vivo. Tata Group is known for its philanthropical activities, and sponsoring a world-class cricket tournament in India by the Indian Giant firm is a research case. This study adopted the Event study method to analyse the impact of the IPL Title 2022

sponsorship event on the seventeen stocks of the Tata Group. It was found that Indian Hotels Co. Ltd. and Tata Communications Ltd. had significant abnormal returns on the event day. It implies that the market is more optimistic about the title sponsorship from these two companies. Both these companies have direct connections with sports events, where Tata communication ltd. provides internet and broadcasting services to sports events, and Indian Hotels Co. Ltd. will gain business from tourism that comes with the sports tournament. The average abnormal return of the next day of the event turns out to be significantly positive, which implies the positive sentiment of traders and investors regarding the Tata Group. The overall results hold the argument that the stock prices of firms that have a direct relation to the IPL tournament react positively to good news. This study implies that investors can take long positions in the communication and tourism sector during sports tournaments. Investors who are risk-averse can stay away from trading throughout the tournament to avoid the risk associated with the stock market volatility during the tournament. This study will benefit investors as it may help them better understand and evaluate the impact of the Sports event on stock markets caused by IPL title sponsorship. The limitation of this study is that this study examines the market sentiment regarding the Sponsorship event. Further research can be conducted more precisely with qualitative and primary data samples.

References

- Aftab, R. and Naveed, M. (2020) 'Investment review in sports leagues: financial evidence from Pakistan super league', *Managerial Finance*, Vol. 47, No. 6, pp.856–867. Doi: 10.1108/MF-04-2020-0214.
- Ashton, J.K., Gerrard, B. and Hudson, R. (2003) 'Economic impact of national sporting success: evidence from the London stock exchange', *Applied Economics Letters*, Vol. 10, No. 12, pp.783–785. Doi: 10.1080/1350485032000126712.
- Berman, G., Brooks, R. and Davidson, S. (2000) 'The Sydney Olympic Games announcement and Australian stock market reaction', *Applied Economics Letters*, Vol. 7, No. 12, pp.781–784. Doi: 10.1080/135048500444796
- Berument, M. H., Ceylan, N. B. and Ogut-Eker, G. (2009) 'Soccer, stock returns and fanaticism: evidence from Turkey', *Social Science Journal*, Vol. 46, No. 3, pp.594–600. Doi: 10.1016/j.soscij.2009.06.001.
- Boyle, G.W. and Walter, B. (2003) 'Reflected glory and failure: international sporting success and the stock market', *Applied Financial Economics*, Vol. 13, No. 3, pp.225–235. Doi: 10.2139/ssrn.269288.
- Cao, M. and Wei, J. (2005) 'Stock market returns: a note on temperature anomaly', *Journal of Banking and Finance*, Vol. 29, No. 6, pp.1559–1573. Doi: 10.1016/j.jbankfin.2004.06.028.
- Edmans, A., García, D. and Norli, Ø. (2007) 'Sports sentiment and stock returns', *The Journal of Finance*, Vol. 62, No. 4, pp.1967–1998. Doi: 10.1111/j.1540-6261.2007.01262.x.
- Fama, E.F. (1991) 'Efficient capital markets: II', *Journal of Finance*, Vol. 46(5, pp.1575–1617. Doi: 10.2307/2328565.
- Fan, Q. and Wang, T. (2018) 'Game day effect on stock market: evidence from four major sports leagues in US', *Journal of Behavioral and Experimental Finance*, Vol. 20, pp.9-18.
- Fan, Q., Lei, W. and Zhang, X.P. (2017) 'The impact of sports sentiment on stock returns: a case study from professional sports leagues', *Proceedings of the IEEE Global Conference on Signal and Information Processing (GlobalSIP).*
- Gkillas, K., Gupta, R., Lau, C.K.M. and Suleman, M.T. (2020) 'Jumps beyond the realms of cricket: India's performance in one day internationals and stock market movements', *Journal* of Applied Statistics, Vol. 47, No. 6, pp.1109–1127.

- Graziano, E.A. and Vicentini, F. (2017) 'Football cultural events and stock market returns: the case of FIFA World Cup', *International Journal of Environmental Policy and Decision Making*, Vol. 2, No. 2, pp.167–178. Doi: 10.1504/ijepdm.2017.083919.
- Hiremath, G.S., Venkatesh, H. and Choudhury, M. (2019) 'Sports sentiment and behavior of stock prices: a case of T-20 and IPL cricket matches', *Review of Behavioral Finance*, Vol. 11, No. 3, pp.266–276. Doi: 10.1108/RBF-04-2018-0043.
- Hirshleifer, D. and Shumway, T. (2003) 'Good day sunshine: stock returns and the weather', *Journal of Finance*, Vol. 58, No. 3, pp.1009–1032. Doi: 10.1111/1540-6261.00556.
- Jensen, J.A. and Cobbs, J.B. (2014) 'Predicting return on investment in sport sponsorship: modeling brand exposure, price, and ROI in formula one automotive competition', *Journal of Advertising Research*, Vol. 54, No. 4, pp.435–447. Doi: 10.2501/JAR-54-4435-447.
- Justinek, G. (2022) 'Editorial: from one crisis to another', *International Journal of Diplomacy and Economy*, Vol. 8, No. 2, pp.109–112.
- Justinek, G. (2023a) 'Editorial: what is the year 2023 bringing us?', *International Journal of Diplomacy and Economy*, Vol. 9, No. 1.
- Justinek, G. (2023b) 'State of economic play: European Union and economic diplomacy', *International Journal of Diplomacy and Economy*, Vol. 9, No. 1, pp.81–92.
- Kamstra, M.J., Kramer, L.A. and Levi, M.D. (2000) 'Losing sleep at the marker: the daylight saving anomaly', *American Economic Review*, Vol. 90, No. 4, pp.1005–1011.
- Kaplanski, G., Levy, H., Veld, C. and Veld-Merkoulova, Y. (2015) 'Do happy people make optimistic investors?', *Journal of Financial and Quantitative Analysis*, Vol. 50, Nos. 1/2, pp.145–168. Doi: 10.1017/S0022109014000416.
- Lakshman, C. and Akhter, M. (2013) 'Corporate governance scandals in the Indian Premier League (IPL): implications for labour', *Labour & Industry: A Journal of the Social and Economic Relations of Work*, Vol. 23, No. 1, pp.89–106. Doi: 10.1080/10301763.2013.769859.
- Maurya, A. (2009) *IPL*: birth of cricketainment a case study on sports marketing by board of control for cricket in India. Available online at: http://ssrn.com/abstract=1353725
- Mishra, V. and 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*, Vol. 18, No. 3, pp.319–334. Doi: 10.1016/j.pacfin.2010.02.005.
- Naidenova, I., Parshakov, P. and Chmykhov, A. (2016) 'Does football sponsorship improve company performance?', *European Sport Management Quarterly*, Vol. 16, No. 2, pp.129–147. Doi: 10.1080/16184742.2015.1124900.
- Nair, N. (2011) 'Cricket obsession in India: through the lens of identity theory', *Sport in Society*, Vol. 14, No. 5, pp.569–580. Doi: 10.1080/17430437.2011.574351.
- Narayan, P.K., Rath, B.N. and Prabheesh, K.P. (2016) 'What is the value of corporate sponsorship in sports?', *Emerging Markets Review*, Vol. 26, pp.20–33. Doi: 10.1016/j.ememar.2016.02.003.
- Pandey, A. (2020) 'Tata Sons and the Mystery of Mistry', Vikalpa, Vol. 45, No. 3, pp.183–185. Doi: 10.1177/0256090920973062.
- Payne, B.C., Tresl, J. and Friesen, G.C. (2018) 'Sentiment and stock returns: anticipating a major sporting event', *Journal of Sports Economics*, Vol. 19, No. 6, pp.843-872.
- Saini, M., Yadav, M., Aggarwal, V. and Kumar, M. (2023) 'All weather friends: how did the Russia–Ukraine war impact Indian stock markets?', *International Journal of Diplomacy and Economy*, Vol. 9, No. 1, pp.93–111.
- Sen, S. and Kayal, P. (2020) 'Indian premier league (IPL) match victory and sponsors' stock returns', *Journal of Public Affairs*, Vol. 22, No. 1, pp.1–8. Doi: 10.1002/pa.2352.
- Sharma, D. and Verma, R. (2020) 'Reaction of stock price to frauds' announcements: evidence from Indian banking sector', *Asia-Pacific Journal of Management Research and Innovation*, Vol. 16, No. 2, pp.157–166. Doi: 10.1177/2319510x20930879.

- Stracca, L. (2004) 'Behavioral finance and asset prices: where do we stand?', *Journal of Economic Psychology*, Vol. 25, No. 3, pp.373–405. Doi: 10.1016/S0167-4870(03)00055-2.
- Syed, A.M. and Bajwa, I.A. (2018) 'Earnings announcements, stock price reaction and market efficiency – the case of Saudi Arabia', *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 11, No. 3, pp.416–431. Doi: 10.1108/IMEFM-02-2017-0044.
- Truong, Q.T., Tran, Q.N., Bakry, W., Nguyen, D.N. and Al-Mohamad, S. (2021) 'Football sentiment and stock market returns: evidence from a frontier market', *Journal of Behavioral and Experimental Finance*, Vol. 30.
- Ullah, F., Asif, M., Zahid, M. and Mehreen, F. (2018) 'Investor sentiment in stock market: a case of Pakistan super league in Pakistan stock exchange', *Journal of Business and Tourism*, Vol. 4, No. 2, pp.101–121. Doi: 10.34260/jbt.v4i2.165.
- Verstoep, A., Singh, H., Nguyen, A. and Bhattacharya, S. (2015) 'Short-term impacts of the cricket match performances on national share markets – a case study of India and Australia', *Sport in Society*, Vol. 18, No. 3, pp.263–274. Doi: 10.1080/17430437.2014.951436.
- Vieira, E.F.S. (2012) 'Investor sentiment and market reaction: evidence on 2010 FIFA World Cup', *International Journal of Economics and Accounting*, Vol. 3, No. 1, pp.51–76. Doi: 10.1504/ijea.2012.045522.
- Yuan, K., Zheng, L. and Zhu, Q. (2006) 'Are investors moonstruck? Lunar phases and stock returns', *Journal of Empirical Finance*, Vol. 13, No. 1, pp.1–23. Doi: 10.1016/j.jempfin.2005.06.001.