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AN EVENT STUDY USING OPTIMUM SAMPLES: EFFECT OF BONUS OR SPLITS ON INDIAN LISTED COMPANIES

Finance

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ABSTRACT

Making decisions for listed businesses' bonuses and splits with the goal of rewarding shareholders and bringing down share prices. This article compares the performance of the index with the optimum sample size (four companies) from Indian listed companies using event study techniques twenty days before and after the event (Nifty). Companies are chosen at chance. Bonus shares are extra shares that are given to current shareholders depending on how many shares they currently own at no additional expense. We discover that 75% of samples gave investors satisfying and predictable outcomes. However, as the number of shares grows, the price per share decreases. However, the total capital remains the same even if bonus shares are declared.

KEYWORDS

Event Study, Split or Bonus, Indian Listed Companies

INTRODUCTION:-

This article uses event study methods considering twenty days before and after the event selecting optimum sample size (four companies) from Indian listed companies and compared with the performance of the index (Nifty). The selection of companies are random. Bonus shares are extra shares that are provided to current shareholders at no additional cost based on how many shares they currently own. These are the company's accumulated profits that are converted into free shares rather than being distributed as dividends. The fundamental idea behind bonus shares is that the number of shares outstanding grows while maintaining a fixed ratio between shares held and outstanding shares. It is difficult for new investors to purchase shares of a business when the price per share is high. The price per share decreases as the quantity of shares increases. But even if bonus shares are announced, the total capital stays the same.

A stock split is a decision made by the board of directors of a business to issue more shares to current shareholders in order to expand the number of shares outstanding. For instance, in a 2-for-1 stock split, each share that a stockholder owns is exchanged for a new share. As a result, following a 2-for-1 split, a business with 10 million shares outstanding prior to the split will now have 20 million. Stock split has an impact on a stock's valuation as well. The stock price will drop after a separation (because the number of shares outstanding has increased). The share price will be cut in half in the case of a 2-for-1 division. The company's market capitalization stays the same even though a stock split raises the number of outstanding shares and proportionally reduces the share price. A share's split value is also deducted from its face worth. For instance, a 5:1 split could result in the reduction of 10 face value shares to 5 shares with a face value of Rs. 2 each. In contrast, in bonus, a share's face worth stays the same.

We frequently observe the business making decisions regarding bonuses and splits in order to both reward shareholders and lower share prices. As a result, the market's share availability is improved, and share demand rises. We will attempt to address a few of the following queries in this essay: - increases the supply of shares on the market as well as desire for them. We will attempt to address a few of the following queries in this essay: -

1) Does the news of a bonus or a split have any impact on the share price?
2) Does the share price rise or fall if it does?
3) What are the various days that we need to bear in mind when a bonus or split is announced?

This is done by calculating Cumulative Average Abnormal Returns(CAAR) and Average Abnormal Returns(AAR).

The Main Objectives Of This Study Are:-

1) To find out whether profitable trades can be made in the stocks which announce bonuses/splits in the coming period.
2) To find out their comparison with Nifty during the same period and whether there is any sizeable outperformance.

RESEARCH METHODOLOGY:-

The daily asset prices of Jubilant Foodworks, Bajaj Finserv, IRCTC, and Lauras Labs are chosen at random, and they are compared before and after the bonus or split choice. We also calculate the absolute return, mean return, and median return over a period of 20 trading sessions before and after the bonus/split declaration.

On February 2, 2022, Jubilant Foodworks declared a stock split. It was suggested to reduce a share's face worth from Rs. 10 to Rs 2. A stock division of 5:1 occurred. This indicates that for every current shareholder's 1 share in the jubilant brand, they will receive 5 shares. But each share's stock price is also divided into five equal portions. The announcement of the stock split and bonus for Bajaj Finserv occurred on July 28, 2022. Due to the stock split, equity shares that had a nominal value of Rs. 5 were divided into five equally sized shares, each worth Rs. 1. One additional share of Rs. 1 per share of Rs. 1 was issued as a result of the incentive share issue. The share's stock price was divided into two equal portions. The announcement of the IRCTC share division was made on August 12, 2021. The stock split resulted in the partition of equity shares with a face value of Rs. 10 into five equally sized shares, each with a face value of Rs 2. The share's stock price was divided into two equal portions. And, on April 30, 2020, Laurus Labs declared a split in its shares. It divided its face worth of Rs. 10 into 5 shares of Rs 2. The share's stock price was divided into two equal portions.

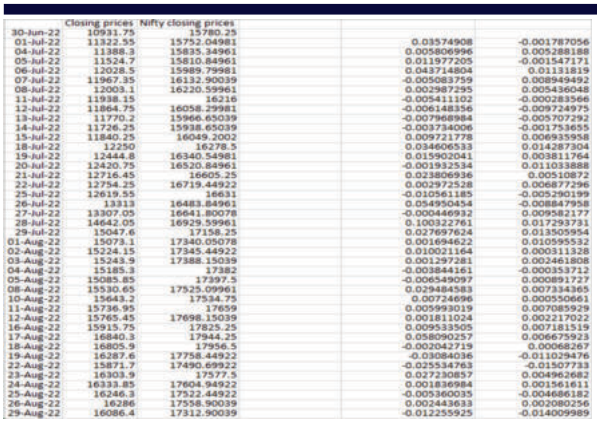
- Absolute Return Percentage = ((Day of Announcement Price - Twentieth Trading Session Before Price) / Twentieth Trading Session Before Price) * 100
- Mean return Percentage = $\sum$ ((Next day Price – Previous Day Price)/ Previous Day Price) * 100
- Median Return Percentage = (l + ((n/2 – c)/f)*h)*100.
- All these values are calculated separately for 20 trading sessions before the record date and 20 sessions after the record date.

RESULTS AND DISCUSSION

Table No. 1, 2, 3 and 4 exhibits the actual prices before and after the event i.e. twenty days' time-frame before and after the event along with computation of absolute returns in percentage.

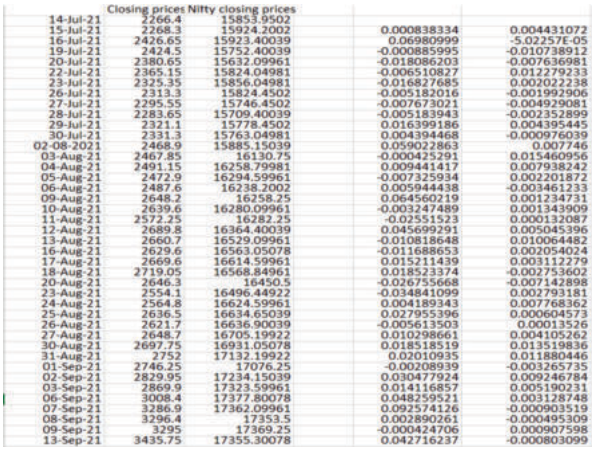
Dates	Closing pri	Nifty closing prices		
10-Jan-22	3637.9	18003.3		
11-Jan-22	3579.9	18055.75	-0.015943264	0.002913355
12-Jan-22	3763.45	18212.3	0.051272382	0.008670368
13-Jan-22	3782.25	18257.8	0.004995416	0.002498312
14-Jan-22	3806.6	18255.75	0.006437967	-0.000112281
17-Jan-22	3917.2	18308.1	0.0290548	0.00286759
18-Jan-22	3918.55	18113.05	0.000344634	-0.010653754
19-Jan-22	3931.5	17938.4	0.003304794	-0.009642219
20-Jan-22	3893.95	17757	-0.009551062	-0.010112385
21-Jan-22	3787.2	17617	-0.027414322	-0.007884215
24-Jan-22	3741.5	17149.1	-0.012066962	-0.026559573
25-Jan-22	3695.55	17277.95	-0.012281171	0.007513514
27-Jan-22	3701.7	17110.15	0.001664164	-0.0097118
28-Jan-22	3500.65	17101.95	-0.05431883	-0.000479248
31-Jan-22	3451.25	17339.85	-0.014111665	0.013910694
01-Feb-22	3243.05	17576.85	-0.060325969	0.013667938
02-Feb-22	3304.6	17780.8	0.018979048	0.011603331
03-Feb-22	3384.25	17560	0.024102766	-0.012417889
04-Feb-22	3440.4	17516.3	0.016591564	-0.00248861
07-Feb-22	3301.6	17213.6	-0.040344146	-0.017281047
08-Feb-22	3187.5	17266.75	-0.034559002	0.003087675
09-Feb-22	3207.9	17463.8	0.0064	0.011412107
10-Feb-22	3173.9	17605.85	-0.010598834	0.008133969
11-Feb-22	3240.2	17374.75	0.020889127	-0.013126319
14-Feb-22	3221.75	16,842.80	-0.005694093	-0.030616268
15-Feb-22	3180.25	17,352.45	-0.012881198	0.030259221
16-Feb-22	3080	17,322.20	-0.031522679	-0.00174327
17-Feb-22	2947.7	17,304.60	-0.042954545	-0.001016037
18-Feb-22	3148.5	17,276.30	0.066763918	-0.001635403
21-Feb-22	3060.15	17206.65039	-0.026824614	-0.004031512
22-Feb-22	3030.85	17092.19922	-0.009574694	-0.006651566
23-Feb-22	2980.35	17063.25	-0.016661993	-0.001693709
24-Feb-22	2981.3	16247.9502	0.000318755	-0.047781038
25-Feb-22	2994.25	16658.40039	0.004343743	0.02526166
28-Feb-22	3029.2	16793.90039	0.011672372	0.008134034
02-Mar-22	2884.6	16605.94922	-0.047735376	-0.011191633
03-Mar-22	2940.7	16498.05078	0.019448104	-0.006497577
04-Mar-22	2910.5	16245.34961	-0.010269664	-0.015317032
07-Mar-22	2857.25	15863.15039	-0.018295825	-0.023526685
08-Mar-22	2799.45	16013.4502	-0.020229241	0.009474776

Figure 1 Jubilant Food price changes



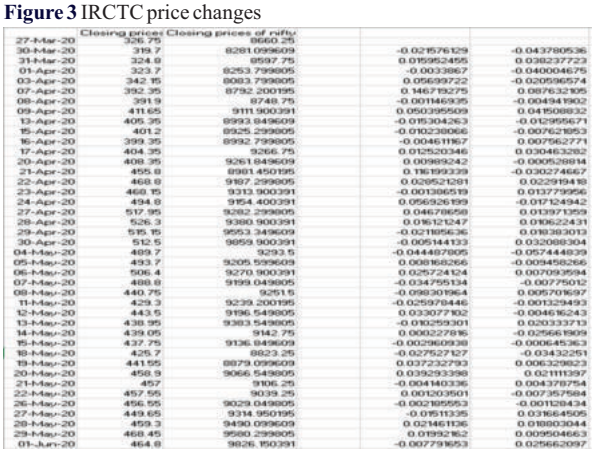
	Closing prices	Nifty closing prices		
30-Jun-22	10931.75	15780.25		
01-Jul-22	11322.55	15752.04981	0.03574908	-0.001787056
04-Jul-22	11388.3	15835.34961	0.005806996	0.005288188
05-Jul-22	11524.7	15810.84961	0.011977205	-0.001547171
06-Jul-22	12028.5	15989.79981	0.043714804	0.01131819
07-Jul-22	11967.35	16132.90039	-0.005083759	0.008949492
08-Jul-22	12003.1	16220.59961	0.002987295	0.005436048
11-Jul-22	11938.15	16216	-0.005411102	-0.000283566
12-Jul-22	11864.75	16058.29981	-0.006148356	-0.009724975
13-Jul-22	11770.2	15966.65039	-0.007968984	-0.005707292
14-Jul-22	11726.25	15938.65039	-0.003734006	-0.001753655
15-Jul-22	11840.25	16049.2002	0.009721778	0.006935958
18-Jul-22	12250	16278.5	0.034606533	0.014287304
19-Jul-22	12444.8	16340.54981	0.015902041	0.003811764
20-Jul-22	12420.75	16520.84961	-0.001932534	0.011033888
21-Jul-22	12716.45	16605.25	0.023806936	0.00510872
22-Jul-22	12754.25	16719.44922	0.002972528	0.006877296
25-Jul-22	12619.55	16631	-0.010561185	-0.005290199
26-Jul-22	13313	16483.84961	0.054950454	-0.008847958
27-Jul-22	13307.05	16641.00078	-0.000446932	0.009582177
28-Jul-22	14642.05	16929.59961	0.100322761	0.017293731
29-Jul-22	15047.6	17158.25	0.027697624	0.013505954
01-Aug-22	15073.1	17340.05078	0.001694622	0.010595532
02-Aug-22	15224.15	17345.44922	0.010021164	0.000311328
03-Aug-22	15243.9	17388.15039	0.001297281	0.002461808
04-Aug-22	15185.3	17382	-0.003844161	-0.000353712
05-Aug-22	15085.85	17397.5	-0.006549097	0.000891727
08-Aug-22	15530.65	17525.09961	0.029484583	0.007334365
10-Aug-22	15643.2	17594.75	0.00724696	0.003550661
11-Aug-22	15736.95	17659	0.005993019	0.007085929
12-Aug-22	15765.45	17698.15039	0.001811024	0.002217022
16-Aug-22	15915.75	17825.25	0.009533503	0.007181519
17-Aug-22	16840.3	17944.25	0.058090257	0.006675923
18-Aug-22	16805.9	17956.5	-0.002042719	0.00068267
19-Aug-22	16287.6	17758.44922	-0.03084036	-0.011029476
22-Aug-22	15871.7	17496.69922	-0.025534763	-0.01507733
23-Aug-22	16303.9	17577.5	0.027230857	0.004962682
24-Aug-22	16333.85	17604.94922	0.001836984	0.001561611
25-Aug-22	16246.3	17522.44922	-0.005360035	-0.004686182
26-Aug-22	16286	17558.90039	0.002443633	0.002080256
29-Aug-22	16086.4	17312.90039	-0.012255925	-0.014009989

Figure 2 Bajaj Finserv price changes



	Closing prices	Nifty closing prices		
14-Jul-21	2266.4	15853.9502		
15-Jul-21	2268.3	15924.2002	0.000838334	0.004431072
16-Jul-21	2426.65	15923.40039	0.06980999	-5.02257E-05
19-Jul-21	2424.5	15752.40039	-0.000885995	-0.010738912
20-Jul-21	2380.65	15632.09961	-0.018086203	-0.007636981
22-Jul-21	2365.15	15824.04981	-0.006510827	0.012279233
23-Jul-21	2325.35	15856.04981	-0.016827685	0.002022238
26-Jul-21	2313.3	15824.4502	-0.005182016	-0.001992906
27-Jul-21	2295.55	15746.4502	-0.007673021	-0.004929081
28-Jul-21	2283.65	15709.40039	-0.005183943	-0.002352899
29-Jul-21	2321.1	15778.4502	0.016399186	0.004395445
30-Jul-21	2331.3	15763.04981	0.004394468	-0.000976039
02-08-2021	2468.9	15885.15039	0.059022863	0.007746
03-Aug-21	2467.85	16130.75	-0.000425291	0.015460956
04-Aug-21	2491.15	16258.79981	0.009441417	0.007938242
05-Aug-21	2472.9	16294.59961	-0.007325934	0.002201872
06-Aug-21	2487.6	16238.2002	0.005944438	-0.003461233
09-Aug-21	2648.2	16258.25	0.064560219	0.001234731
10-Aug-21	2639.6	16280.09961	-0.003247489	0.001343909
11-Aug-21	2572.25	16282.25	-0.02551523	0.000132087
12-Aug-21	2689.8	16364.40039	0.045699291	0.005045396
13-Aug-21	2660.7	16529.09961	-0.010818648	0.010064482
16-Aug-21	2629.6	16563.05078	-0.011688653	0.002054024
17-Aug-21	2669.6	16614.59961	0.015211439	0.003112279
18-Aug-21	2719.05	16568.84961	0.018523374	-0.002753602
20-Aug-21	2646.3	16450.5	-0.026755668	-0.007142898
23-Aug-21	2554.1	16496.44922	-0.034841099	0.002793181
24-Aug-21	2564.8	16624.59961	0.004189343	0.007768362
25-Aug-21	2636.5	16634.65039	0.027955396	0.000604573
26-Aug-21	2621.7	16636.90039	-0.005613503	0.00013526
27-Aug-21	2648.7	16705.19922	0.010298661	0.004105262
30-Aug-21	2697.75	16931.05078	0.018518519	0.013519836
31-Aug-21	2752	17132.19922	0.02010935	0.011880446
01-Sep-21	2746.25	17076.25	-0.00208939	-0.003265735
02-Sep-21	2829.95	17234.15039	0.030477924	0.009246784
03-Sep-21	2869.9	17323.59961	0.014116857	0.005190231
06-Sep-21	3008.4	17377.80078	0.048259521	0.003128748
07-Sep-21	3286.9	17362.09961	0.092574126	-0.000903519
08-Sep-21	3296.4	17353.5	0.002890261	-0.000495309
09-Sep-21	3295	17369.25	-0.000424706	0.000907598
13-Sep-21	3435.75	17355.30078	0.042716237	-0.000803099

Figure 3 IRCTC price changes



	Closing prices	Closing prices of nifty		
27-Mar-20	326.75	8660.25		
30-Mar-20	319.7	8281.099609	-0.021576129	-0.043780536
31-Mar-20	324.9	8597.75	0.019592455	0.038237723
01-Apr-20	323.7	8253.799805	-0.0033867	-0.040004675
03-Apr-20	342.15	8083.799805	0.05699722	-0.020596574
07-Apr-20	392.35	8792.200195	0.146778275	0.087632905
08-Apr-20	391.9	8748.75	-0.001146935	-0.004941902
09-Apr-20	411.65	9111.900391	0.050395509	0.041508832
13-Apr-20	405.35	8993.849609	-0.015304263	-0.012956671
15-Apr-20	401.2	8925.299805	-0.010238806	-0.007621853
16-Apr-20	399.35	8992.799805	-0.004611167	0.007562771
17-Apr-20	404.35	9266.75	0.012520346	0.030463282
20-Apr-20	408.35	9261.849609	0.01989932	-0.000529814
21-Apr-20	455.8	8981.450195	0.116299339	-0.030274667
22-Apr-20	468.8	9187.299805	0.028521281	0.02291948
23-Apr-20	469.15	9313.900391	-0.001386519	0.013779956
24-Apr-20	494.8	9154.400391	0.056926199	-0.01724942
27-Apr-20	517.95	9282.299805	0.04678658	0.013971359
28-Apr-20	526.3	9380.900391	0.016121247	0.010622431
29-Apr-20	515.15	9553.349609	-0.021185636	0.018383013
30-Apr-20	512.5	9859.900391	-0.005144133	0.032088304
04-May-20	489.7	9293.5	-0.044487805	-0.057444839
05-May-20	493.7	9205.599609	0.008168266	-0.009458266
06-May-20	506.4	9270.900391	0.025724124	0.007093594
07-May-20	488.8	9199.049805	-0.034755134	-0.00775012
08-May-20	440.75	9251.5	-0.098301964	0.005701697
11-May-20	429.3	9239.200195	-0.025978446	-0.001329493
12-May-20	443.5	9196.549805	0.033077102	-0.004616243
13-May-20	438.95	9383.549805	-0.010259301	0.020333713
14-May-20	439.05	9142.75	0.000227816	-0.025661909
15-May-20	437.75	9136.049609	-0.002960938	-0.000732563
18-May-20	425.7	8823.25	-0.027527127	-0.03432251
19-May-20	441.55	8879.099609	0.037232793	0.006329823
20-May-20	458.9	9066.549805	0.039293398	0.021111397
21-May-20	457	9106.25	-0.004140336	0.004378754
22-May-20	457.55	9039.25	0.001203501	-0.007357584
26-May-20	456.55	9029.049805	-0.002185553	-0.001128434
27-May-20	449.65	9314.950195	-0.01511335	0.031664905
28-May-20	459.3	9490.099609	0.021461136	0.018903044
29-May-20	468.45	9580.299805	0.01992162	0.009504663
01-Jun-20	464.8	9826.150391	-0.007791653	0.025662097

Figure 4 Laurus Labs price changes

Three companies out of 4 provided positive and predictable returns. This suggests that 3 out of 4 cases, the news about bonus/split gave positive absolute returns and beat the nifty benchmark by a wide margin. This tells us that in the pre-announcement note, when the company tells us it may give a split/bonus on the announcement date, a strategy can be employed to buy stocks and keep them till announcement date and even twenty trading sessions after to earn benchmark-beating returns. The mean return tells us that we can earn an average of 1-3% on a daily basis in the twenty trading sessions before and twenty trading sessions after the announcement date. The probability of this is 75% as jubilant foodworks did not manage to beat the nifty as can be seen from the data. The median return tells that by dividing the 20 day period into 2 different parts we can still earn 0-2% return both before the announcement and after the announcement. Thus we can say that there is a good price movement both before and after the announcement that gives an opportunity to profit for the seasoned investor.

Table 1 Comparative performance of selected companies (Percentage change)

	Before	Split	After	Split
	Nifty	Jubilant Food	Nifty	Jubilant Food
Absolute Return	-1.22%	-9.15%	-10%	-15%
Mean Return	-0.07%	-0.56%	-0.44%	-0.69%
Median Return	0.12%	-0.46%	-0.25%	-1.03%
	Before	Split	After	Split
	Nifty	Bajaj Finserv	Nifty	Bajaj Finserv
Absolute Return	7.2%	33.9%	3.7%	11.2%
Mean Return	0.35%	1.51%	0.11%	0.49%
Median Return	0.52%	0.44%	0.18%	0.18%
	Before	Split	After	Split
	Nifty	IRCTC	Nifty	IRCTC
Absolute Return	18.66%	27.44%	3.22%	6.05%
Mean Return	0.16%	0.90%	0.30%	1.27%
Median Return	0.13%	- 0.07%	0.24%	1.22%
	Before	Split	After	Split
	Nifty	Laurus Labs	Nifty	Laurus Labs
Absolute Return	13.8%	57%	-0.3%	-9.3%
Mean Return	0.70%	2.37%	0%	-0.44%
Median Return	0.91%	1.12%	0.19%	-0.26%

We can anticipate making an average daily profit of 1% to 3% during the twenty trading sessions previous to and twenty trading sessions after the release date, according to the mean return. Jubilant Foodworks was unable to outperform the nifty, as shown by the data, so the probability of this is 75%. Even after dividing the 20-day timeframe into two parts, the median return shows that we can still earn a return of 0% prior to and 2% following the announcement. The positive price movement before and after the announcement, which offers a profit opportunity for the seasoned investor, is what leads us to this conclusion. This demonstrates that when the company informs us in the pre-announcement note that it may give a split or bonus on the announcement date, a strategy can be used to buy stocks and hold them until the announcement date and even twenty trading sessions after to earn returns that outperform the benchmark.

CONCLUSION

Four Indian listed businesses with daily asset price returns before and after the event were chosen at random. We calculated the absolute return, mean return, and median return for this reason. We find that three of the sample's four businesses delivered predictable, positive returns, and that the asset prices of listed companies increased by at least 20% as soon as the news was announced. This demonstrates that a strategy can be used to buy stocks and hold them until the announcement date and even twenty trading sessions after in order to earn returns that outperform the benchmark when the company informs us in the pre-announcement note that it may give a split or bonus on the announcement date.