

## **STOCK SPLIT AND IT'S EFFECT ON STOCK RETURNS – A CASE STUDY ON SELECTED COMPANIES IN INDIA**

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**Abstract**—*The stock split is one of the corporate actions used by the companies to increase the liquidity in the stock by reducing the face value and market value of the shares without change in the wealth of the shareholders. This increases the liquidity and marketability of the securities. This stock split is one of the stock events should be observed by the investors for investing of their funds in short period. In this regard above study is an empirical study examines the impact of stock split announcement and stock split event on the stock price behaviour. The research variables in the study included share prices during five-day pre and post announcement and event of stock split of selected companies during 2020 and 2022. The selected companies are KBC global ltd, Eicher motors and Black box companies. These are selected randomly from NSE stock split companies during the study period. The study used T- test to measure the impact of stock split during pre and post announcement and event on share price returns of selected companies. The study measured the returns in absolute figures in rupeesThe study observed the mixed result in the stock price behaviour in selected companies after their stock split. It means that some companies' returns are positive and negative during pre and post stock split movement during pre and post five days from stock split announcement and stock split event.*

**Keywords:** *Stock Split, Corporate Events, Share Price Behavior.*

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### **INTRODUCTION:**

A stock split is a corporate move that reduces the nominal value of existing shares in a certain ratio. A 1:5 stock split entails dividing one current share into five shares. The face value of shares will decrease to one-fifth of the original face value. For instance, if an investor possesses 100 shares of a corporation with a par value of Rs.10 apiece, a stock split in the ratio of 1:5 will augment the number of shares to 500, while the par value of each share will decrease to Rs.2. From the company's standpoint, there is no alteration in its share capital, since an increase in the number of shares is counterbalanced by a decrease in the face value, resulting in the product of face value and the outstanding number of shares remaining constant. Companies contemplate share splits when their secondary market values are perceived as excessively high, so limiting investor participation. A decrease in price per share following a split enhances market liquidity. Analogous to a bonus, a split is a bookkeeping item that leads to an augmented number of outstanding shares in the company's records, accompanied by a diminished face value, without conferring any economic advantage to the shareholders. A share split may be employed to affect investor psychology by lowering the market price per share and to enhance market liquidity, without providing any economic advantage to shareholders. As the total number of shares increases without any economic alterations in the Profit and Loss statement or Balance Sheet, per share metrics (earnings per share, book value per share, market price per share, etc.) see instantaneous decline. Nonetheless, as shareholders' proportional ownership remains constant while the number of shares they possess increases, there is no adverse effect on shareholders at the overall ownership level.

## **REVIEW OF LITERATURE**

Suskim & Hendayana (2023) evaluated the stock performance as assessed by anomalous returns preceding and following stock splits and reverse stock splits. The study employed an event study utilizing descriptive and comparative methodologies. The study examined 30 issuers that executed stock splits and reverse stock splits during 2018-2019. The study employed mean difference test (paired sample t-test). The study found that average abnormal returns of stocks rose following the stock split and reverse stock occurrence. This evidence that the market responds to the stock split and reverses stock transaction. The study also found that abnormal returns exhibited large disparities before and after the stock split and reverse stock occurrence.

Suhartini and Hariyanto (2022) analyzed the behavior of stock prices and stock returns during pre and post to the stock split. The data in the study comprises daily records spanning a five-year period from 2015 to 2020. The sampling approach employed was purposive sampling, with 31 companies that fulfilled the criteria selected as samples. This research employs descriptive statistical tests, normality tests, and paired sample t-tests as its analytical methods. The findings of this analysis reveal a substantial disparity in stock prices and stock returns prior to and following the stock split

Pravin, Pratik (2020) investigated the stock splits encompasses the strategy of psychological pricing, whereby the new prices appeal to both prospective investors and current shareholders. The study examines the impact of stock and their anomalous returns of selected firms listed on the BSE. This study employs an event study methodology. The abnormal return of the stock was analyzed for a duration of 7 days preceding and following the stock split date. The study encompassed the period from 2018-19 to 2019-20, with a sample size of five companies.

West, Jessica, and Bitter, Michael. (2019) conducted research indicating that individuals tend to focus on huge numbers while disregarding other pertinent information throughout their decision-making processes. The numerosity heuristic, a cognitive bias, serves as the initial behavioral theory elucidating why investors like receiving a greater number of shares in a stock split, despite the aggregate economic worth remaining unchanged. In the case of forward splits, after accounting for the favorable signals of enhanced earnings growth and liquidity from the split announcement, the stock price responds positively to the increased number of shares issued. Significantly, the application of a dual class numerosity model elucidates why most traditional explanations inadequately account for the adverse stock price response to reverse splits.

Philip. Ghar Ghor & E. Maberly (2015) found that splitting firms earn positive abnormal returns and that they experience an increase in stock return volatility. By examining option-implied volatility, the assess option traders' perceptions on return and volatility changes arising from stock splits. Whereas find that they do expect higher volatility following splits. There is only weak evidence, though, of option traders anticipating an abnormal increase in stock prices. it also shows that option measures can predict both stock volatility levels and changes after the announcement. However, there is little evidence that they can predict the returns of splitting firms.

Huang, Gow-Cheng & Liano (2013) examines the effects of stock splits on stock liquidity. The find that most liquidity measures increase substantially around the stock split announcement. After the announcement date, split firms' liquidity declines, but is still above the pre-split level. However, after the ex-date, the liquidity drops below the pre-split level. Thus, the impact of stock splits on stock liquidity appears to be short-lived. It also finds that the change in liquidity can significantly explain the announcement effect, but not the ex-date effect. Overall, our results seem to be more consistent with the signaling hypothesis and/or the attention-grabbing hypothesis than with the improved liquidity hypothesis

### **NEED OF THE STUDY:**

Stock split is one of the corporate events use by the corporate companies to lock wealth creation by the companies to the shareholders. Stock split leads to lock of wealth, decrease in share prices, increase in number of shares which in turn increase the liquidity to the share and trading volume. Stock split does result in eradication of shareholders wealth it only leads to price reduction of the share. The research studies on stock split analysis are few due to lack of sufficient data and complexity in analysis. Thus, present study focused on the measuring the impact of stock split on share price returns during pre and post announcement and event in Indian context.

### **OBJECTIVES OF THE STUDY:**

- To examine the stock return during pre and post announcement and event of stock split in the case of KBC Global Ltd
- To study the stock return during pre and post announcement and event of stock split in the case of Eicher Motors

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- To examine the stock return during pre and post announcement and event of stock split in the case of Black Box Ltd

**HYPOTHESIS:**

The study formulated following alternative hypothesis and examined with T-test, where null hypothesis is implied

H<sub>1</sub>: There is significant impact stock split announcement on stock price returns of KBC Global ltd.

H<sub>2</sub>: There is significant impact stock split announcement on stock price returns of Eicher Motors

H<sub>3</sub>: There is significant impact stock split announcement on stock price returns of Black Box

H<sub>4</sub>: There is significant impact stock split event on stock price returns of KBC Global ltd

H<sub>5</sub>: There is significant impact stock split event on stock price returns of Eicher Motors

H<sub>6</sub>: There is significant impact stock split event on stock price returns of Black Box

**RESEARCH METHODOLOGY:**

Present study is an analytical and event study in nature and purely based on the secondary data collected from various published sources. The research variables in the study included share prices during five-day pre and post announcement and event of stock split of selected companies during 2020 and 2022. The selected companies are KBC global ltd, Eicher motors and Black box companies. These are selected randomly from NSE stock split companies during the study period. The study used T- test to measure the impact of stock split during pre and post announcement and event on share price returns of selected companies. The study measured the returns in absolute figures in rupees.

<b>DATA ANALYSIS AND INTERPRETATION</b>					
Table 1.-Share price return's during pre and post stock split announcement KBC Global Ltd					
<b>Pre-announcement share price returns</b>			<b>Post- announcement share price returns</b>		
<b>Date</b>	<b>Price</b>	<b>Returns</b>	<b>Date</b>	<b>Price</b>	<b>Returns</b>
30-04-2020	113	0	08-05-2020	133.1	-1.00
04-05-2020	116.1	2.74	11-05-2020	136.55	2.59
05-05-2020	119.5	2.93	12-05-2020	130.75	-4.25
06-05-2020	122.6	2.59	13-05-2020	142.25	8.80
07-05-2020	134.45	9.67	14-05-2020	141.05	-0.84
TOTAL		17.93	TOTAL		5.30
AVERAGE		4.48	AVERAGE		1.06
<b>Pre-split share price returns</b>			<b>Post- split share price returns</b>		
25-06-2020	254.05	0	02-07-2020	57.9	0
26-06-2020	253	-0.41	03-07-2020	60.75	4.92
29-06-2020	265.5	4.94	06-07-2020	63.75	4.94
30-06-2020	269.05	1.34	07-07-2020	61.2	-4.00
01-07-2020	275.65	2.45	08-07-2020	62.15	1.55
TOTAL		8.32	TOTAL		7.41
AVERAGE		2.08	AVERAGE		1.48
<b>T-Test: Paired Two Sample for Means (Pre-post announcement)</b>					
Mean	121.13	136.74	t Stat		-5.51729625

Variance	68.4095	24.5255	P(T<=t) one-tail	0.00263404
Observations	5	5	t Critical one-tail	2.131846782
Pearson Correlation	0.645872		P(T<=t) two-tail	0.00526808
Mean Difference	0		t Critical two-tail	2.776445105
Df	4			
<b>T-Test: Paired Two Sample for Means (Pre-post stock split)</b>				
Mean	263.45	61.15	t Stat	52.6414313
Variance	95.49125	4.62125	P(T<=t) one-tail	3.89732E-07
Observations	5	5	t Critical one-tail	2.131846782
Pearson Correlation	0.625271388		P(T<=t) two-tail	0.00000
Mean Difference	0		t Critical two-tail	2.776445105
Df	4			
<b>Source: Computed by the Author</b>				

Table 2.-Share price return's during pre and post stock split announcement Eicher Motors					
Pre-announcement share price returns			Post- announcement share price returns		
Date	Price	Returns	Date	Price	Returns
05-06-2020	17499.9	o	12-06-2020	16825.1	2.87
08-06-2020	16900	-3.43	15-06-2020	16525	-1.78
09-06-2020	17030	0.77	16-06-2020	16600	0.45
10-06-2020	17051.2	0.12	17-06-2020	16814	1.29
11-06-2020	16355.65	-4.08	18-06-2020	17100	1.70
TOTAL		-6.61	TOTAL		4.53
AVERAGE		-1.65	AVERAGE		0.91
Pre-split share price returns			Post- split share price returns		
17-08-2020	21134.7	o	24-08-2020	2176.45	0
18-08-2020	21404.7	1.28	25-08-2020	2217.25	1.87
19-08-2020	21261.35	-0.67	26-08-2020	2248.85	1.43
20-08-2020	21371.35	0.52	27-08-2020	2236.35	-0.56
21-08-2020	21702.4	1.55	28-08-2020	2213.6	-1.02
TOTAL		2.67	TOTAL		1.73
AVERAGE		0.67	AVERAGE		0.35
<b>T-Test: Paired Two Sample for Means (Pre-post announcement)</b>					
Mean	16967.35	16772.82	t Stat	0.793507326	
Variance	168319.565	50689.312	P(T<=t) one-tail	0.235948271	

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Observations	5	5	t Critical one-tail	2.131846782
P Correlation	-0.441106		P(T<=t) two-tail	0.47190
Mean Difference	0		t Critical two-tail	2.776445105
Df	4			
<b>T-Test: Paired Two Sample for Means (Pre-post stock split)</b>				
Mean	21374.9	2218.5	t Stat	206.6393945
Variance	44686.63375	758.38	P(T<=t) one-tail	1.64513E-09
Observations	5	5	t Critical one-tail	2.131846782
Pearson Correlation	0.212523841		P(T<=t) two-tail	0.000000
Mean Difference	0		t Critical two-tail	2.776445105
df	4			
Source: Compiled by Author				

Table 3. Share price return's during pre and post stock split announcement Black Box					
<b>Pre-announcement share price returns</b>			<b>Post- announcement share price returns</b>		
Date	Price	Returns	Date	Price	Returns
07-03-2022	791.25	o	14-03-2022	798.6	-1.61
08-03-2022	765.35	-3.27	15-03-2022	783.9	-1.84
09-03-2022	788.85	3.07	16-03-2022	808.85	3.18
10-03-2022	819.1	3.83	17-03-2022	806.3	-0.32
11-03-2022	811.65	-0.91	21-03-2022	796.7	-1.19
TOTAL		2.72	TOTAL		-1.77
AVERAGE		0.68	AVERAGE		-0.35
<b>Pre-split share price returns</b>			<b>Post- split share price returns</b>		
06-05-2022	778.85	o	13-05-2022	167	0
09-05-2022	760.85	-2.31	16-05-2022	184.9	10.72
10-05-2022	740.65	-2.65	17-05-2022	172.1	-6.92
11-05-2022	718.2	-3.03	18-05-2022	171.4	-0.41
12-05-2022	696.1	-3.08	19-05-2022	159.25	-7.09
TOTAL		-11.07	TOTAL		-3.70
AVERAGE		-2.77	AVERAGE		-0.74
<b>T-Test: Paired Two Sample for Means (Pre-post announcement)</b>					
Mean	795.24	798.87	t Stat	-0.48516948	
Variance	447.188	95.922	P(T<=t) one-tail	0.326465016	
Observations	5	5	t Critical one-tail	2.131846782	

P Correlation	0.63544097		P(T<=t) two-tail	0.65293
Mean Difference	0		t Critical two-tail	2.776445105
Df	4			
<b>T-Test: Paired Two Sample for Means (Pre-post stock split)</b>				
Mean	738.93	170.93	t Stat	43.52464864
Variance	1085.29825	87.1545	P(T<=t) one-tail	8.33016E-07
Observations	5	5	t Critical one-tail	2.131846782
Pearson Correlation	0.521748488		P(T<=t) two-tail	0.0000017
Mean Difference	0		t Critical two-tail	2.776445105
df	4			
Source: Compiled by Author				

## ANALYSIS AND INTERPRETATION

1. **KBC Global Limited:** The study observed that on 30-04-2020, the share price was 113, and indicating no change in the price. The share price increased from 113 to 116.1 on 04-05-2020, resulting in a return of 2.74%. The share price further increased to 119.5 on 05-05-2020, generating a return of 2.93%. The share price continued to rise to 122.6 on 06-05-2020, yielding a return of 2.59%. There was a substantial increase in the share price from 122.6 to 134.45 on 07-05-2020, leading to a return of 9.67%. The total pre-announcement share price return is 17.93%, with an average of 4.48% returns. The study observed that on 08-05-2020 the share price was 133.1, and the return is -1%, indicating a slight decrease. The share price increased from 133.1 to 136.55 on 11-05-2020, resulting in a return of 2.59%. The share price decreased from 136.55 to 130.75 on 12-05-2020, leading to a return of -4.25%. The share price significantly increased to 142.25 on 13-05-2020, generating a return of 8.80%. The share price slightly decreased from 142.25 to 141.05 on 14-05-2020, resulting in a return of -0.84%. The total post-announcement share price return is 5.30%, with an average return of 1.06% returns.

The study observed that on 25-06-2020, the share price was 254.05, and the return is 0, indicating no change in the price. The share price decreased from 254.05 to 253 on 26-06-2020, resulting in a return of -0.41%. The share price increased to 265.5 on 29-06-2020, generating a return of 4.94%. The share price increased further to 269.05 on 30-06-2020, yielding a return of 1.34%. The share price continued to rise to 275.65 on 01-07-2020, resulting in a return of 2.45%. The total pre-split share price return is 8.32%, with an average return of 2.08%. The study observed that on 02-07-2020 The share price was 57.9, and the return is -79%, indicating a substantial decrease. The share price increased from 57.9 to 60.75 on 03-07-2020, resulting in a return of 4.92%. The share price increased further to 63.75 on 06-07-2020, generating a return of 4.94%. The share price decreased to 61.2 on 07-07-2020, leading to a return of -4.00%. The share price increased slightly to 62.15 on 08-07-2020, resulting in a return of 1.55%. The total post-split share price return is -71.59%, with an average return of -14.32%. In the t-test paired two sample test, the P value is 0.00526808 which is less than the standard alpha value of 0.05. This indicates that reject null hypothesis and accept alternative hypothesis that there is significant impact of stock split and share price. In the t-test paired two sample test, the P value is 0.000, which is less than the standard alpha value of 0.05. This indicates that reject null hypothesis and accept alternative hypothesis that there is significant impact of stock split and share price behaviour.

2. **EICHER MOTORS LTD:** The study observed that on 05-06-2020, the share price was 17499.9, and the return is 0, indicating no change in the price. The share price decreased from 17499.9 to 16900 on 08-06-2020, resulting in a return of -3.43%. The share price increased from 16900 to 17030 on 09-06-2020, generating a return of 0.77%. The share price increased slightly to 17051.2 on 10-06-2020, yielding a return of 0.12%. There was a significant decrease in the share price from 17051.2 to 16355.65 on 11-06-2020, leading to a return of -4.08%. The total pre-announcement share price return is -6.61%, with an average return of -1.65%. The study observed that on 12-06-2020 The share price was 16825.1, and the return is 2.87%, indicating an increase. The share price decreased from 16825.1 to 16525 on 15-06-2020, resulting in a return of -1.78%. The share price increased slightly from 16525 to 16600 on 16-06-2020, generating a return of 0.45%. The share price increased further to 16814 on 17-06-2020,

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leading to a return of 1.29%. The share price continued to rise to 17100 on 18-06-2020, resulting in a return of 1.70%. The total post-announcement share price return is 4.53%, with an average return of 0.91%.

The study observed that on 17-08-2020, the share price was 21134.7, and the return is 0, indicating no change in the price. The share price increased from 21134.7 to 21404.7 on 18-08-2020, resulting in a return of 1.28%. The share price decreased from 21404.7 to 21261.35 on 19-08-2020, yielding a return of -0.67%. The share price increased slightly to 21371.35 on 20-08-2020, generating a return of 0.52%. The share price continued to rise to 21702.4 on 21-08-2020, resulting in a return of 1.55%. The total pre-split share price return is 2.67%, with an average return of 0.67%. The study observed that on 24-08-2020 The share price was 2176.45, and the return is -89.97%, indicating a substantial decrease. The share price increased from 2176.45 to 2217.25 on 25-08-2020, resulting in a return of 1.87%. The share price increased further to 2248.85 on 26-08-2020, generating a return of 1.43%. The share price decreased slightly to 2236.35 on 27-08-2020, leading to a return of -0.56%. The share price slightly decreased from 2236.35 to 2213.6 on 28-08-2020, resulting in a return of -1.02%. The total post-split share price return is -88.24%, with an average return of -17.65%.

In the t-test paired two sample test, the P value is 0.47190 which is less than the standard alpha value of 0.05. This indicates that reject null hypothesis and accept alternative hypothesis that there is significant impact of stock split and share price behaviour. In the t-test paired two sample test, the P value is 0.000000 which is less than the standard alpha value of 0.05. This indicates that reject null hypothesis and accept alternative hypothesis that there is significant impact of stock split and share price behaviour.

3. **Black Box Limited:** The study observed that on 07-03-2022, the share price was 791.25, and the return is 0, indicating no change in the price. The share price decreased from 791.25 to 765.35 on 08-03-2022, resulting in a return of -3.27%. The share price increased from 765.35 to 788.85 on 09-03-2022, generating a return of 3.07%. The share price increased further to 819.1 on 10-03-2022, yielding a return of 3.83%. There was a slight decrease in the share price from 819.1 to 811.65 on 11-03-2022, leading to a return of -0.91%. The total pre-announcement share price return is 2.72%, with an average return of 0.68%. The study observed that on 14-03-2022 The share price was 798.6, and the return is -1.61%, indicating a decrease. The share price increased from 798.6 to 783.9 on 15-03-2022, resulting in a return of -1.84%. The share price increased slightly from 783.9 to 808.85 on 16-03-2022, generating a return of 3.18%. The share price slightly decreased from 808.85 to 806.3 on 17-03-2022, leading to a return of -0.32%. The share price further decreased from 806.3 to 796.7 on 21-03-2022, resulting in a return of -1.19%. The total post-announcement share price return is -1.77%, with an average return of -0.35%.

The study observed that on 06-05-2022, the share price was 778.85, and the return is 0, indicating no change in the price. The share price decreased from 778.85 to 760.85 on 09-05-2022, resulting in a return of -2.31%. The share price decreased further to 740.65 on 10-05-2022, yielding a return of -2.65%. The share price decreased again to 718.2 on 11-05-2022, leading to a return of -3.03%. The share price continued to decrease to 696.1 on 12-05-2022, resulting in a return of -3.08%. The total pre-split share price return is -11.07%, with an average return of -2.77%. The study observed that on 13-05-2022 The share price was 167, and the return is -76.01%, indicating a significant decrease. The share price increased from 167 to 184.9 on 16-05-2022, resulting in a return of 10.72%. The share price decreased slightly from 184.9 to 172.1 on 17-05-2022, generating a return of -6.92%. The share price slightly decreased again from 172.1 to 171.4 on 18-05-2022, leading to a return of -0.41%. The share price further decreased to 159.25 on 19-05-2022, resulting in a return of -7.09%. The total post-split share price return is -79.71%, with an average return of -15.94%. In the t-test paired two sample test, the P value is 0.65293 which is less than the standard alpha value of 0.05. This indicates that reject null hypothesis and accept alternative hypothesis that there is significant impact of stock split and share price behaviour. In the t-test paired two sample test, the P value is 0.0000017 which is less than the standard alpha value of 0.05. This indicates that reject null hypothesis and accept alternative hypothesis that there is significant impact of stock split and share price behaviour.

#### **FINDINGS OF THE STUDY:**

- The study found that, KBC GLOBAL Company generated 17.93 % returns five trading session pre stock split announcement with an average of 4.48 % per day, on the other hand, it generated total 5.30 % in five trading session during post stock split announcement with average of 1.06 %. This indicates that KBC companies stock returns is higher during pre-stock split news than post period.
- The study found that, KBC GLOBAL Company generated 8.32% returns five trading session pre stock split with an average of 2.08% per day, on the other hand, it generated total -71.59% in five trading session during post stock split with average of -14.32%. This indicates that KBC company's stock returns is higher during pre-stock split than post period.

- The study found that, KBC GLOBAL Company generated -6.61 % returns five trading session pre stock split announcement with an average of -1.65 % per day, on the other hand, it generated total 4.53 % in five trading session during post stock split announcement with average of 0.91%. This indicates that KBC companies stock returns is lower during pre-stock split news than post period.
- The study found that, KBC GLOBAL Company generated 2.67 % returns five trading session pre stock split with an average of 0.67 % per day, on the other hand, it generated total -88.24 % in five trading session during post stock split with average of -17.65%. This indicates that KBC company's stock returns is higher during pre-stock split than post period.
- The study found that, KBC GLOBAL Company generated 2.72 % returns five trading session pre stock split announcement with an average of 0.68 % per day, on the other hand, it generated total -1.77 % in five trading session during post stock split announcement with average of -0.35%. This indicates that KBC company's stock returns are higher during pre-stock split news than post period.
- The study found that, KBC GLOBAL Company generated -11.07 % returns five trading session pre stock split with an average of -2.77 % per day, on the other hand, it generated total -79.71 % in five trading session during post stock split with average of -15.94 %. This indicates that KBC company's stock returns is lower during pre-stock split than post period.

## **CONCLUSION**

The stock split is one of the corporate actions used by the companies to increase the liquidity in the stock by reducing the face value and market value of the shares without change in the wealth of the shareholders. This increases the liquidity and marketability of the securities. This stock split is one of the stock events should be observed by the investors for investing of their funds in short period. In this regard above study is an empirical study examines the impact of stock split announcement and stock split event on the stock price behaviour. The study observed the mixed result in the stock price behaviour in selected companies after their stock split. It means that some companies' returns are positive and negative during pre and post stock split movement during pre and post five days from stock split announcement and stock split event. The study recommends that a similar study can be done on other corporate events like bonus issue, merger and acquisitions, cross listing, rights issues so as to determine how the stock market reacts to these events. This will help stakeholders be in a position to conclude whether India stock market is efficient in the semi-strong form as different events conveys different information.

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