Impact of Corporate Tax Reduction Announcement on Selected Indices and Stocks Using Market Return Model

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ABSTRACT

This paper tries to examine the impact of announcement made on corporate tax reduction on the returns of selected indices and stocks. There are a handful of studies available on impact of budget and other major political move on stock prices. This study attempts to take an announcement as an event and check its impact on major indices of NSE. As the study reveals that there is no unanimity in the effect of the indices, this paper also tries to cover the reason for such variance. Five major indices (NIFTY AUTO, NIFTY FINANCIAL SERVICES, NIFTY FMCG, NIFTY ENERGY, and NIFTY IT) are taken into the study. Abnormal return on the date of event is calculated and then tested for its significance level. The analysis of the study finds that all except NIFTY IT has a negative effect of the announcement. The study also peep into reasons for such effect (basically negative effect) on indices/stock.

Keywords: Corporate Tax Reduction, NSE, Abnormal Returns, Market Return Model, Nirmala Candle.

1. INTRODUCTION

Theidea of predicting stock market returns is an abstruse inquiry. Bachelier (1900), Mandelbrot (1963), and Samuelson (1965) are believer of this hypothesis which still holds true in this real world. Another similar hypothesis was given by Fama (1970) of Efficient Market which believes that asset prices carry all available information of the market. Another scholar F.A. Hayek (1945) believed that all the pieces of information available with individual are aggregated and brought to the market as individual seek to gain something from their particular private information and this competitive limit they pull off each information to the market and the resultant market news reflects all the information and can only move in response to a new news.In their seminal paper, Fama, Fisher, Jensen, and Roll (1969) propose the event study methodology and the same shown that stock prices on average react before a stock split, but have no movement afterwards.

So, believing the attributes of EMH true, this paper tries to make a kind of event study and its effect on selected indices and stocks. The present study has taken “new corporate tax regime” as an event and tried to measure its impact on NSE indices.

Event description

According to the Press information Bureau, Government of India, Ministry of Finance, New Delhi, on September 20th, 2019 the then and current Union Minister of Finance and Corporate Affairs Smt. Nirmala Sitharaman made a few announcements for amendment in Indian Taxation Act 1961. Major amendments are listed hereunder:

a. With effect from FY 2019-2020 any domestic company will be liable to pay corporate tax at the rate of 22% subject to the condition that they will not avail any exemption or incentive. A total of 27.15% tax will be levied inclusive of all surcharges and cess. Also, such companies shall not be required to pay Minimum Alternate Tax.
b. Also, any domestic company incorporated after 1st October 2019 if investing in manufacturing and commencing its business on or before 31st march 2023 not availing any exemption or incentives will be taxable at 17.01% inclusive of all surcharge and cess. Also, such companies shall not be required to pay Minimum Alternate Tax.
c. A company which does not opt for the concessional tax regime and avails the tax exemption/incentive shall continue to pay tax at the pre-amended rate. However, these companies can opt for the concessional tax regime after expiry of their tax holiday/exemption period. In order to provide relief to companies which continue to avail exemptions/incentives, the rate of Minimum Alternate Tax has been reduced from existing 18.5% to 15%.

However, there are other few more provisions but they are out of the scope of this paper. The above amendments are the most decisive one. The biggest tax cut in 28 years, the new corporate income tax (CIT) bill passed from lower house on 2nd December, 2019 by inserting a new Section 115BAA in Income Tax Act.

Notable changes on the event day

- The Sensex recording its biggest intra-day spike closed at 38,014.62 points with a record growth of 5.32%. The NIFTY 50 in a parallel move rose to 11,270.20 which was a record growth of 5.32%. Analyst has addressed this big move in candlesticks as – Nirmala Candle move.
- The tax cuts take the effective tax rate down from 34.93 percent to 25.17 percent, if and only if companies are willing to let go all exemptions and incentives.
- The finance ministry pegged the revenue loss as a result of the tax cuts at Rs 1.45 lakh crore.
- The Indian rupee too responded positively and climbed 37 paise and closed at 70.94 against US dollar
- Sure the government will meet fiscal aim despite corporate tax cut; easy to achieve 8% GDP growth, said NITI Aayog Vice Chairman, Rajiv Kumar
- According to a report o feconomics times -FIIs net bought Rs 35.78 crore worth of shares while DIIs net bought Rs 3,001.32 crore in equities today, as per provisional data available on NSE.

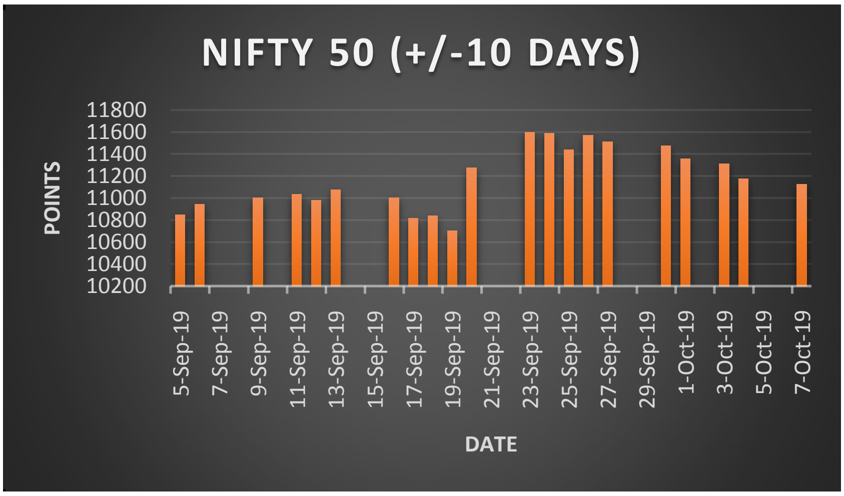


Figure1: closing price of NIFTY 50 for 21 days

The above graph shows the trend NIFTY 50 follows in a span of 21 days which includes 0 day- the event day (20 sept, 2019) 10 pre and 10 post days to the event. The NIFTY closed 10704 on 19th September but it spiked to 11274 the next day i.e., the event day. It continued to rise till next trading day and reached 11600 points. But after 23 sept it began to fall gradually and locked itself to 11126 on post 10th day of the event.

2. LITERATURE REVIEW

There are various studies which tries to capture the effect of an event on stock market and many of them conclude that return on event days are more insecure than from non-event days. Studies probing into effect of union budget, any political move (elections) or any global event or corporate event like merger & acquisition, dividend announcement, stock split etc have been chosen as an eventand an event study has been performed. *Gakhar and kushwaha* (2015) in their paper “Impact of Union Budget on Indian Stock Market” measured the impact through daily volatility and daily average return over short term, medium term and long term period during pre and post budget period. 5 union budget period is collected as data of the study and t test, paired t test and F test are used to analyse the results. They conclude that the budget has a significant impact in short term which gradually diminishes in medium and long term.

Divya V and Sharon Sophia had tried to check the effect of demonetisation on Indian stock market taking 10 software companies as sample and found out though demonetisation was a big hit the sector was affected for a very short and immediate period and soon wrapped itself quickly and began to boom. Another interesting event was taken up by *Vikas Agarwal,Pulak Ghosh and Haibei Zhao*, they took Mumbai attack as a natural experiment to capture investors behaviour and volume traded on that day.

Vithessonthi and Techarongrojwong (2013) made an attempt to study the impact of Monetary Policy announcement on stock market of Thailand. *Jurgita Stankeviþienoa and Simas Akelaitisb* (2014) also studied the effect of public announcement on Lithuanian stock market. *Miglani* (2011) propose a paper measuring the effect of announcement of right shares by Indian companies on shareholders returns.*Holger Breinlich, Elsa Leromain, Dennis Novy,Homas Sampson And Ahmed Usman (2018)* touching another aspect and event chose BREXIT as an event and its impact on UK listed firms.*Mindaugas Dadurkevicius Adele Jansonaite* (2017) made a similar study on BREXIT event. Davy Ghanem and David Rosvall (2014) examined the impact of major world events (MWE) on International stock market.*Madhu Iyengar, Nirmal Iyengar and Harmish Sampat* (2017) tried to capture the effect of US elections on Indian stock market, where IT sector was the prime concern.

Robert Schweitzer (1989) in his paper discussed how do stock returns reacts to special events. He briefly discussed how an event is identified and how to deal with the event study methodologies. SašaObradović & Nenad Tomić (2012) studiedthe effect of presidential election in the USA on stock return flow. *Alhassan Ndekugri & Dr.Gordana Pesakovic* (2017) used event study methodology to evaluate stock market return performance of three multinational companies using three historical events.

3. OBJECTIVES

1. To examine the effect of corporate tax reduction announcement on selected indices.
2. To examine the effect of corporate tax reduction announcement on selected stocks.
3. To find out the reason for different effect of announcement on different indices/stock.

4. RESEARCH METHODOLOGY

The study selects "corporate tax reduction" as a natural experiment and tries to check its impact on NIFTY indices. The event is considered to be sudden move by the government to boost the investment in the economy. There was no previous speculation of tax cut and hence the announcement can be considered a good natural experiment. The study takes NIFTY indices as their sample because NSE as compared to BSE has higher trading volume. Also, the paper incorporates only the 5 most weighted indices of 5 sectors among the 13 sectors of NIFTY 50. The chosen sector weighs in NIFTY in following proportion as on 31st January 2020. It would be interesting to see which sector significantly contributes to the sector and which sector is majorly effected by the announcement.

Table 1

INDICES	WEIGHTAGE IN NIFTY 50
1. NIFTY FINANCIAL SERVICES	41.50 %
2. NIFTY ENERGY	13.66%
3. NIFTY IT	13.17%
4. NIFTY CONSUMER GOODS	11.60%
5. NIFTY AUTOMOBILE	5.66%
Total	**85.59 %**

For the purpose of measuring the impact of the news on indices and stocks t-test has been used to check the significance of abnormal return observed. Here abnormal return is calculated as the difference obtained from indices/stock's actual return and normal return.

1. Where, stock return = LN(P_1 / P_0)

Where, LN = natural log

P_1= price of the index/stock on present day

and, P_2= price of the stock on previous day

2. Normal return of the stock is calculated using the market return model of Mckinlay which stands as follows:

Normal return= $\alpha+\beta*$ market return

Where, market return is calculated using NIFTY 50 as reference index.

3.T test of abnormal return is calculated by dividing obtained abnormal return by standard error

4. Normal return and standard error are computed taking an estimation window of 100 days and event window of 10 days.

5. ANALYSIS AND INTERPRETATION

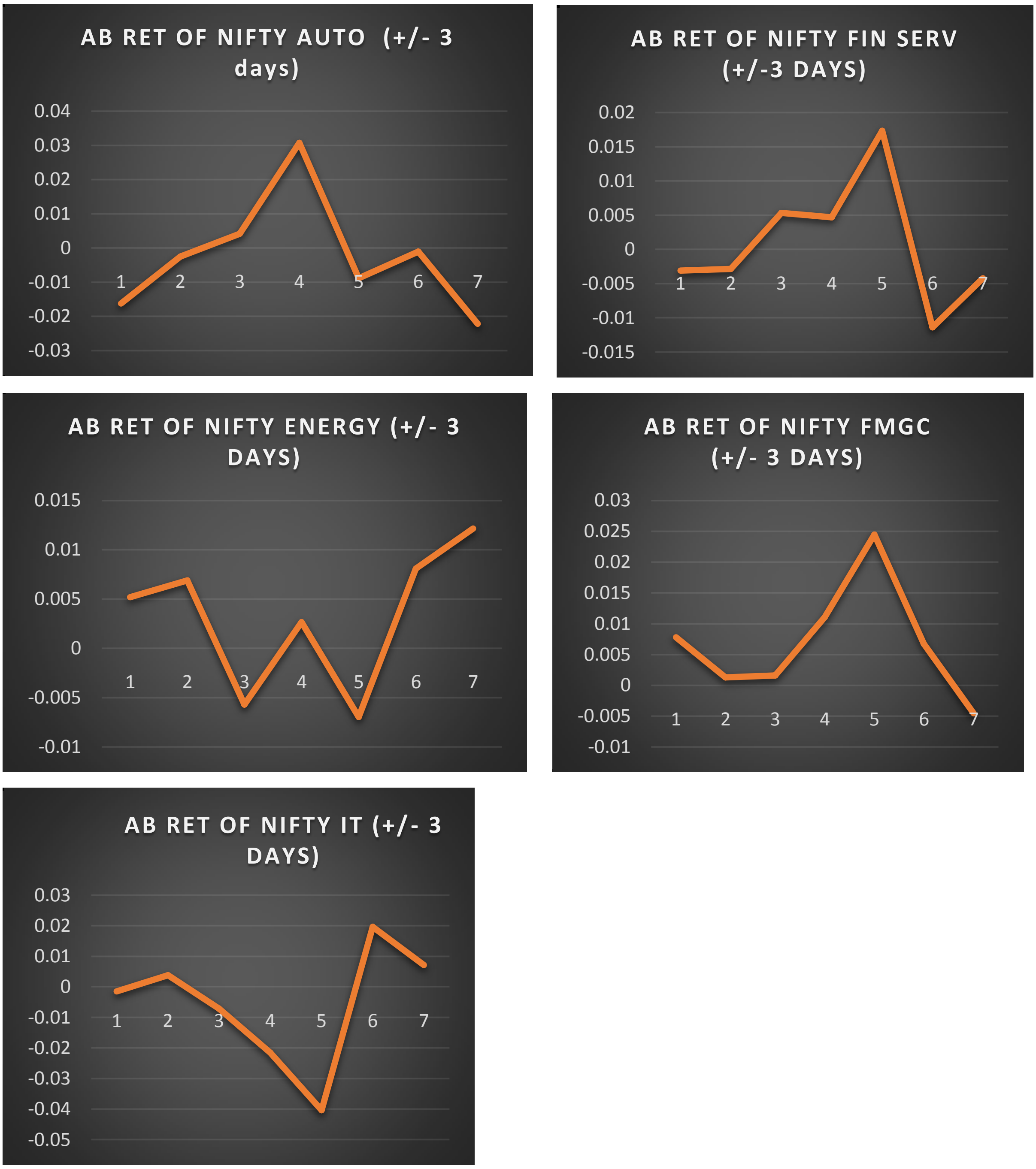
Firstly the paper focuses on the effect of news on selected indices. For this purpose 5 most weighted indices of NIFTY 50 are taken into consideration, followed by selected stocks which emerged as the top gainers and losers of that day are studied.

Table 2: ANALYSIS OF TOP 5 INDICES

S.No.	INDEX	% CHANGE ON EVENT DATE	T-STATISTIC OF AB RET ON EVENT DAY	% CHANGE ON NEXT DAY	T-STASTIC OF AB RET ON NEXT DAY
1.	NIFTY AUTO	9.90%	3.25	2.58%	-0.93
2.	NIFTY FINANCIAL SERVICES	7.15%	0.99	5.44%	3.65
3.	NIFTY ENERGY	5.94%	0.30	2.33%	-0.78
4.	NIFTY FMCG	4.40%	2.05	4.30%	4.55
5.	NIFTY IT	-0.20 %	-2.75	-2.90%	-4.73

The above table shows the percentage change in prices of indices on event datei.e, (20.09.2019) and trading day next to event datei.e, (23.09.2019). All indices except the NIFTY IT reflect a positive effect on its prices following the news. The t- statistic for NIFTY IT also stands -2.75 and -4.73 for event date and day next to event date respectively which is smaller than critical value of -1.96. The table also reflects that NIFTY AUTO and NIFTY FINANCIAL SERVICES witnessed the highest positive change and consequently Eicher Motors, Heromotoco and Indusland bank are the top three gainers of that day. Also, the two tech giants TCS and INFOSYS are among the top 5 losers of that day. Interestingly, NIFTY AUTO recorded the highest percentage change on the day of event in its price though it contributes around 5 % to the NIFTY 50 index. It stands at 5th position in top 5 weighted index taken in the study.

Figures 2: showing abnormal returns of indices for 7 days



The above figures shows the behaviour of abnormal return calculated from deducting actual return from normal return. 7 days abnormal return are plotted wherein 3 immediate pre and 3 immediate post days are taken and event date (0)

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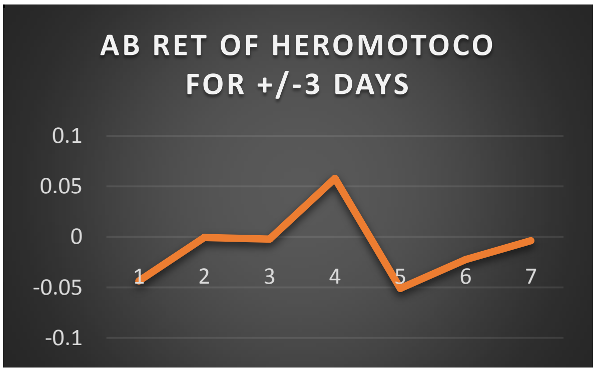
is here accounted as the 4th integer of the x- axis. By observation also the study figures out that except for the NIFTY IT all remaining indices has positive abnormal return on the event date (4th integer) of the x- axis. However, indices like FMCG and FIN SERVICES has even higher abnormal return on next day of the event. And NIFTY ENERGY behaves differently as the abnormal return spiked later on 2nd and 3rd day of the news.

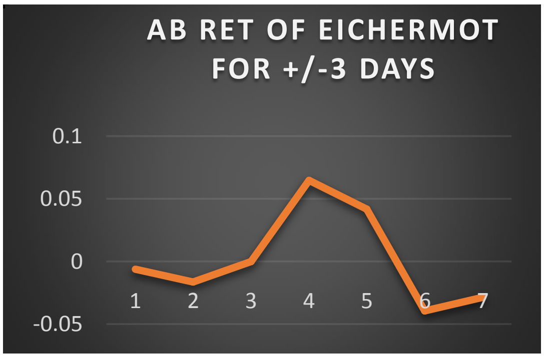
Table 3:ANAYLSIS OF TOP 5 GAINERS

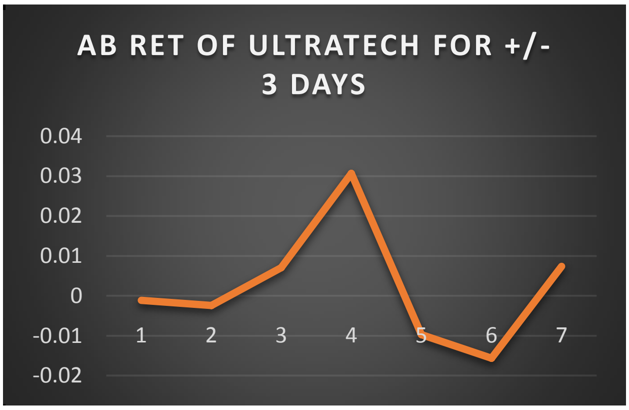
Top gainers	% change	T- statistic of AB RET on event day	% change on day next of event	T- statistic of AB RET on day next to event day
Eicher Motors	+13.38%	3.5	7.7%	2.2
Heromotoco	+13.06%	3.2	-1.4%	-2.8
Indusindbk	+10.71%	0.5	6.4%	0.6
Ultratech	+10.45%	2.3	2.8%	-0.7
Maruti	+10.39%	2.8	4.6%	0.8

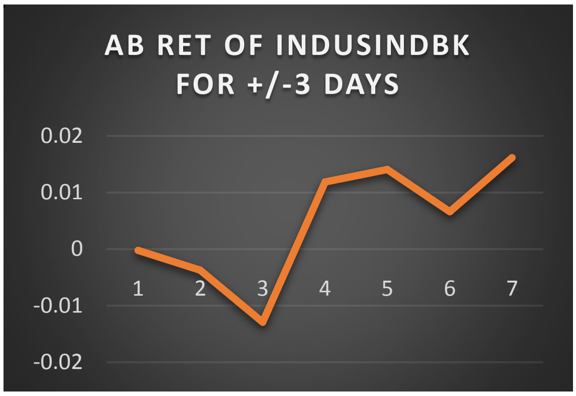
The above table shows a list of top 5 gainers on the day of event i.e.,20.09.2019. Column 2 and 4 reflects percentage change in prices of the stocks on event day (20.09.2019) and trading day next day to the event on 23.09.2019. Eicher Motors experienced the highest positive gain and has significant t- statistic for both the dates. It is being followed by Heromotoco with 13.06% change on event day but the change in prices plunged to -1.4% on immediate next day of the event which is also a significant change. Then follows the Indusind Bank which changes with 10.71% but this change is found to be insignificant. Ultratech and Maruti has positive change and their changes are significant too.

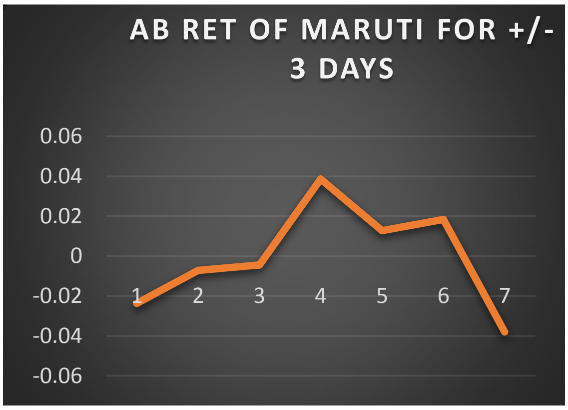
Figures 3: Behaviour of abnormal returns of top 5 gainers for 7 days











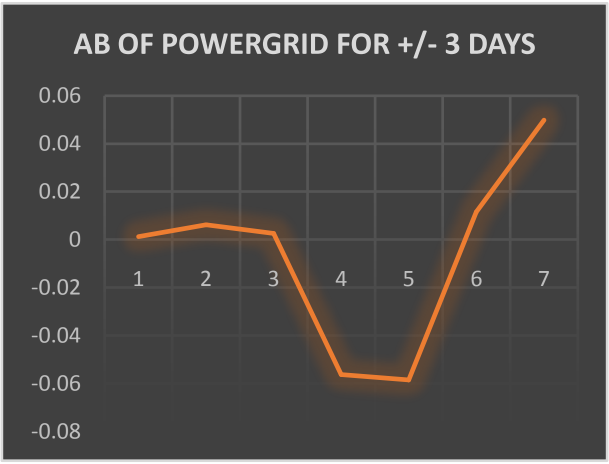
The above graphs showsthe pattern of abnormal returns the stock generated within a span of 7 days (event date, pre 3 days and post 3 days). All the above 5 stocks' abnormal return reflects a significant move on the event day. However, they do not have a similar trend on day next to event day. Heromotoco's abnormal return skid to -0.05 from +0.057 on next day of event. Similarly, abnormal return of Ultratech also dropped down to -0.009 from + 0.03. Remaining stocks have positive abnormal return on both days.

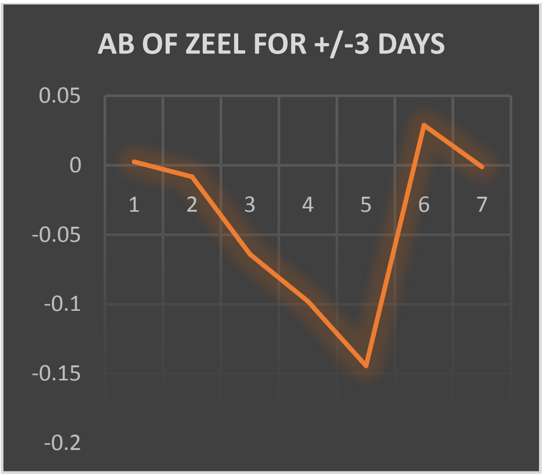
Table 4:ANALYSIS OF TOP 5 LOSERS

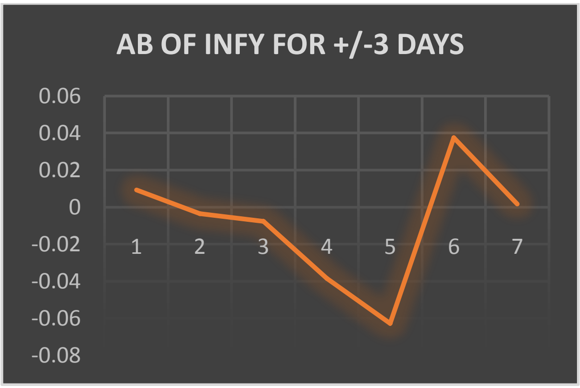
Stocks	% change on event day	t-statistic for AB on event day	% change on day next to event day	t-statistic for AB on event day
Powergrid	-2.46%	-4.3	-4.0%	-4.5
ZEEL	-2.41%	-3.0	-9.8%	-4.4
INFY	-1.91%	-2.9	-5.0%	-4.8
TCS	-1.74%	-2.8	-2.4%	-2.6
NTPC	-1.52%	-4.5	-3.1%	-4.13

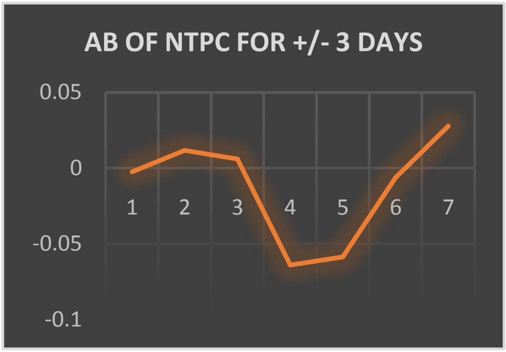
The above table shows a list of top 5 losers on the day of event i.e.,(20.09.2019). Column 2 and 4 reflects percentage change in prices of the stocks on event day (20.09.2019) and trading day next day to the event (23.09.2019). All the stocks have shown a negative return on both day and have significant t value for the same. Powergrid's return fell by 2.46% on event day and further feel by 4%. Its abnormal return is also found to be significant. Although, Powergrid recorded maximum fall on the event day, ZEEL recorded a sharp fall of 9.8% (biggest among others) but on day next to event.

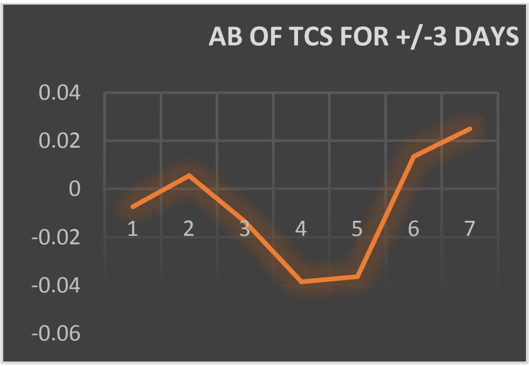
Figures 4: Behaviour of abnormal return of top 5 losers for 7 days











The above graphs shows the pattern of abnormal returns the stock generated within a span of 7 days (event date, pre 3 days and post 3 days). All the above 5 stocks' abnormal return reflects a significant move on the event day. ZEEL ltd. recorded the sharpest fall in returns. The abnormal return of ZEEL reached its maximum to 0.15 (HOLGER BREINLICH, 2018) on day next to event.

Reasons for recorded effect

1. The companies of top 4 indices (AUTO, FINANCIAL SERVICES, ENERGY and FMCG) took the announcement positively as it was obviously a favourable news for them. From the FY 19-20 these companies would be liable for a lower tax rate. According to economics times (30th September 2019) more than half of the NIFTY companies where taxed at >30% in old regime of the corporate tax but the historic move has brought down the number of such companies to 3.
2. The IT sector has not welcomed this move of government, the most possible reason for this would be the cost-benefit ratio of this lowered tax rate and the amount of exemption they avail. It is believed that IT sectors including the IT giants like TCS, INFOSYS, and MINDTREE currently enjoy exemption under section 10AA of Income Tax Act for revenues under Special Economic Zone (SEZs). To enjoy proposed lower tax rate these company will have to let go such exemption.
3. The media giant ZEEL of Essel group has its own reason for being among the top losers on the event day. The company was then facing issues regarding non-payment of debt of India bulls Housing Finance and vice versa and a Delhi high court appointed arbitrator asked them not to pledge their shares in ZEE Entertainment Ltd. This made the company lose their value since one day previous to the event date.
4. The Central Board of Direct Taxes, later on 2nd October released a statement on treatment of MAT credit in new tax regime and clarified that companies wishing to opt for the lower tax regime, shall not be allowed to set off or carry forward unabsorbed MAT credit. But this was not the case on the event. The companies were in dilemma about the MAT credits they held. This might have made the IT and Infrastructure sector to unwelcome such announcements.

6. CONCLUSION

The study tried to capture the effect of announcement of new corporate tax regime on NSE major indices. The study concludes that the news has a significant effect on the indices and stock taken for the study. Although the study reports that the impact varies from indices to indices and stock to stock. Four indices took the news positively but the NIFTY IT behaved differently and is found negative towards the news. The reason for such behaviour may be found out in the fear of loss of exemption and incentives these IT companies avail which they have to let go in case they opt for lower tax regime. Infrastructure companies also behaved inappropriately because of similar fear and ambiguity about MAT credits.

7. LIMITATION AND SCOPE FOR FURTHER STUDY

This study undertakes only selected indices and stocks on which the event's impact has been examined. Also this study is built on the hypothesis of efficient market given by Fama, which although has gained global importance but still lacks testability, so all the limits of the hypothesis rules in this paper too. This paper has used the market return model for computation of normal return, other models like CAPM can also applied. Further studies on all the stocks/ indices or among national markets can also be studied using different model. Also, the reasons given for deviation in effect among indices and stocks are believed to true they are not tested and verified. The probable reasons are collected through newspapers.

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