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CAPITAL MARKET IN INDIA: HAS IT BEEN IMPACTED BY GST?

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ABSTRACT

Our study specifically focuses on the impact of GST on capital market. In India on 1July 2017, the launch was held which is known as goods and service tax. It abolished all the indirect taxes such as VAT, service tax etc. It is a game changer in Indian economy. The slogan was given by Indian Government was that ***"One Nation, One Tax, One Market"****. Our country had adopted dual model that is administration by both central and state government. In new regime, the investors in capital market will be affected in the form of an increase in tax on services for capital gains from previous 15% to 18%. The increase in tax can affect the stock indices so to see the impact we will take five industries that is Automobile, Cement, FMCG, IT and Paint industry data of BSE before and after implementation of GST and our objective is to find the significant difference between pre and post implementation of goods and service tax.*

Keywords: *GST, Capital Market, BSE, Stock Indices, Indian Economy.*

Introduction

The market where investment instruments like bonds, equities and mortgages are traded is known as capital market. Capital market is a financial market in which long- term productive is used. The primary role of this market is to make investment from investors who have surplus funds to the ones who are running a deficit. The purpose of these markets is to channel savings into long-term productivity investments.

The proposed goods and service tax is a long pending and awaited tax reform which India is hoped to iron out the wrinkles in the exciting indirect taxation system (Kushalappa,2016). The law which replaces all indirect taxes levied on goods and services by the central government and state government and implemented GST by 1 July 2017 (www.lexology.com). The GST structure is made under four-chunk rate of 5%, 12%, 18% and 28% (Gupta, 2018). It follows the dual model of tax that is central and state government. It would bring a modern tax system to ensure efficient and effective tax administration.

Indian market is a new tax reformed scheme which was introduced to generate government's revenue equally between the centre and state (Pali, 2018). Our study specifically focuses on the impact of GST on capital market. In India on 1July 2017, the launch was held which is known as goods and service tax. It abolished all the indirect taxes such as VAT, service tax etc. (Sherawat 2015).It is a game changer in Indian economy. The slogan was given by Indian Government was that **"One Nation, One Tax, One Market"**. Our country had adopted dual model that is administration by both central and state government. In new regime, the investors in capital market will be affected in the form of an increase in tax on services for capital gains from previous 15% to 18%. (www.yourstory.com). The increase in tax can affect the stock indices so to see the impact we will take five industries that is Automobile, Cement, FMCG, IT and Paint industry data of BSE before and after implementation of GST and our objective is to find the significant difference between pre and post implementation of goods and service tax.

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Objectives

- To study the reaction of Mahindra and Mahindra company (Automobile Industry) for pre and post GST.
- To understand the reaction of Ambuja Cement company (Cement Industry) before and after GST.
- To investigate the behavior of Britannia (FMCG Industry) for the implementation of GST.
- To study the reaction of Infosys (IT Industry) before and after GST.
- To investigate the reaction on Kansai Nerolac Paints (Paint Company) impact before and after GST.

Hypothesis

- **Null Hypothesis (H_0):** There is no significant difference between the abnormal returns of stock between pre and post GST in India.
- **Alternative Hypothesis (H_1):** There is a significant difference between the abnormal returns of stock between pre and post GST in India.

Literature Review

The focus of most of the studies is on GST. This topic is of great interest of among the researchers.

Monika Sherawat (2015) examined a study on "GST in India: A key tax reform." Their purpose was to explain GST concept and its features along with timelines for its implementation of GST. It focused only on the advantages of GST and challenges faced by Indian in execution.

Subrahamnya Kushalappa (2016) did a study on "Impact of Implication of GST on Indian Stock Market: A study with references to companies of selected Industries." The focused was to show the impact of GST on stock market through the secondary data. The test applied was one way ANOVA with a result of no significant difference between pre and post GST.

Kajal et.al (2016) conducted a research on "A study on impact of GST after its implementation." The paper highlights about GST help to accelerate the overall Gross Domestic Product (GDP) of the country. It is now accepted all over the world and countries are using it for sales tax system.

Urvashi Gupta (2018) examined a study on "An impact of GST on textile industry in India." The purpose was to analyze the impact of GST on textile industry. It is found that exempted goods came under tax regime and it has brought a significant change in textile industry.

Namita Mishra (2018) did a study on "Impact of GST on Indian Economy". The purpose was to explain GST is benefitted for the consumer and reduced the tax burden. It has impacted positively on economy of India.

Purpose of the Study

It is a study about the effect of pre and post GST in India. The date is 1 July 2017 which is been taken as an event, the data is being collected on the weekly (Friday) bases of 2 months before and after GST. The industries covered in the study are Automobiles (Mahindra and Mahindra) industry, Cement (Ambuja cement) industry, FMCG (Britannia) industry, IT (Infosys) industry and Paint (Kansai Nerolac Paints) Company of Bombay Stock Exchange (BSE).

Research Methodology

The entire study is based on secondary data extracted from sources like e-journals and websites. The data of stock prices and SENSEX values are collected from money control website. Formulae were applied to see the significance value. Under the study five companies and the index are taken to calculate the p value and the five companies are as fallows -

- Mahindra and Mahindra (Automobile Industry)
- Ambuja Cement (Cement Industry)
- Britannia(FMCG Industry)
- Infosys (IT Industry)
- Kansai Nerolac Paints (Paint Company)

Techniques of Analysis

- Weekly (Friday), returns of each company have been computed by using the following:

  R1= Log (S1/S0)

  Where, S1 is the closing price of the stock and S0 is the opening price of the stock.

  Rm = Log (Ns1/Ns0)

  Ns1 is the closing price of the Sensex and Ns0 is the opening price of the Sensex.

- Weekly (Friday), Expected Return is as follows:

  Er = Rrf + Ba * (Re – Rrf)

  Where, Er = Expected Return on a security

  Rrf = Risk free rate

  Ba = Beta of the security

  Re = Expected return of the market.

Note – In order to calculate the abnormal returns the estimated return has been calculated using the CAPM Model.

- Abnormal Return – Weekly (Friday), abnormal return on a particular day + is the excess of the average actual return on the day + over the expected return on the day.

  Ar = Rit – E (Rit)

  Where, Rit is the actual weekly return at time t, and E (Rit) is the expected return on the same day.

The study period used in this analysis is a 2 months of the working days. The day of the announcement of the new regime is denoted as 0. Trading week is numbered as pre GST Days and post GST Days. The maximum time involved in this study of 2 months in which Friday is taken as a week day of pre and post GST.

Data Analysis and Interpretation

Table 1: Weekly Abnormal Return, t value and p value for Mahindra and Mahindra

Pre GST Days	Abnormal Value	t Value	p Value	Post GST Days	Abnormal Value	t Value	p Value
5	1.6303	0.2930	0.7813	5	8.4489	0.4050	0.7163
4	1.5142	0.4819	0.6502	4	-1.0423	0.3196	0.7622
3	2.2983	0.4571	0.6668	3	5.1137	0.4913	0.6440
2	-0.2936	0.3486	0.7416	2	9.0399	0.2640	0.8023
1	-4.2793	0.3846	0.7163	1	6.3206	0.3149	0.7656

Source: Compiled from Money Control Website

Table 1, presents the weekly abnormal return, t value and p value of the Automobile Industry. It is fact from table that there are 3 positive and 2 negative abnormal returns during the period of pre GST. Similarly, there are 4 positive and 1 negative abnormal returns during the period of post GST.The test is conducted at .05 value of significance to test the significance of abnormal return.According to the result p value is more than the level of significance of .05. So, all abnormal return is non- significant.

Table 2: Weekly Abnormal Return, t value and p value for Ambuja Cement

Pre GST Days	Abnormal Value	t Value	p Value	Post GST Days	Abnormal Value	t Value	p Value
5	-5.0625	0.2017	0.8481	5	10.7727	0.1577	0.8809
4	-6.9179	0.2745	0.7947	4	-2.3662	0.2682	0.7993
3	-4.7767	0.2023	0.8477	3	4.9445	0.1766	0.8668
2	-2.1331	0.1553	0.8827	2	15.3039	0.3861	0.7153
1	-4.8823	0.2257	0.8304	1	8.8631	0.0403	0.9694

Source: Compiled from Money Control Website

From above table, we get that weekly abnormal return, its t value and p value of the cement industry is shown in table 2. It is observed that there are 0 positive and 5 negative abnormal returns during the period of pre GST and 4 positive and 1 negative abnormal values during the period of post GST.The test is conducted at .05 value of significance to test the significance of abnormal return. The p value is more than .05value of significance. The output of the result is abnormal return is insignificant.

Table 3: Weekly Abnormal Return, t value and p value for Britannia

Pre GST Days	Abnormal Value	t Value	p Value	Post GST Days	Abnormal Value	t Value	p Value
4	-6.0407	0.4620	0.6635	4	-5.1768	0.1290	0.9024
3	-0.5324	0.3942	0.7097	3	-7.1367	0.2542	0.8095
2	-6.1766	0.4681	0.6594	2	-10.4423	0.2772	0.7927
1	-8.5777	0.3832	0.7173	1	-9.9363	0.3908	0.7120

Source: Compiled from Money Control Website

Table 3, presents the weekly abnormal return, its t value and p value of the FMCG Industry. It is fact from table that there are 0 positive and 5 negative abnormal returns during the period of pre GST. Similarly, there are 0 positive and 5 negative abnormal returns during the period of post GST. On the implementation the abnormal value was positive. The test is conducted at .05 value of significance to test the significance of abnormal return. According to the result p value is more than the level of significance of .05. So, all abnormal return is non- significant.

Table 4: Weekly Abnormal Return, T value And P value for Infosys Industry

Pre GST Days	Abnormal Value	t Value	p Value	Post GST Days	Abnormal Value	t Value	p Value
5	0.3746	0.1462	0.8895	5	5.3866	0.4192	0.6925
4	0.3467	0.3020	0.7749	4	-3.0116	0.1145	0.9133
3	0.4630	0.3032	0.7739	3	-0.5869	0.2415	0.8188
2	2.5020	0.3204	0.7616	2	-3.4475	0.0267	0.9797
1	4.0021	0.4497	0.6718	1	-2.6613	0.1101	0.9166

Source: Compiled by Money Control Website

From above table we conclude that weekly abnormal return, its t value and p value of the IT industry is shown in table 4. It is observed that there are 5 positive and 0 negative abnormal returns during the period of pre GST and 1 positive and 4 negative abnormal return during the period of post GST. The test is conducted at .05 value of significance to test the significance of abnormal return. According to the result p value is more than the level of significance of .05. The output of the result is abnormal return is insignificant.

Table 5: Weekly Abnormal Return, t value and p value of Kansai Nerolac Paints Co.

Pre GST Days	Abnormal Value	t Value	p Value	Post GST Days	Abnormal Value	t Value	p Value
5	-7.1842	0.2471	0.8147	5	-1.3584	0.2262	0.8300
4	-5.8294	0.3814	0.7186	4	-3.6909	0.4087	0.6997
3	-2.3034	0.4984	0.6393	3	2.5823	0.1292	0.9022
2	-6.9632	0.4601	0.6648	2	2.501	0.2821	0.7892
1	-4.3212	0.2389	0.8207	1	0.8432	0.3459	0.7435

Source: Compiled by Money Control Websites

Table 5, presents the weekly abnormal return, its t value and p value of the Paints Industry. It is fact from table that there are 0 positive and 5 negative abnormal returns during the period of pre GST. Similarly, there are 3 positive and 2 negative abnormal returns during the period of post GST. On the implementation the abnormal value was positive. The test is conducted at .05 value of significance to test the significance of abnormal return. According to the result p value is more than the level of significance of .05. So, all abnormal return is non- significant.

Table 6: One Way ANOVA Test Result

Source of Variation	SS	df	MS	F	P-value	F crit
Mahindra and Mahindra Industry						
Between Groups	0.0408	1	0.04077	0.0073	0.9339	5.3177
Within Groups	44.5507	8	5.5688			
Ambuja Cement Industry						
Between Groups	0.5889	1	0.5889	0.3527	0.5690	5.3177
Within Groups	13.3574	8	1.6697			
Britannia Company						
Between Groups	0.9197	1	0.9197	0.1617	0.6982	5.3177
Within Groups	45.5109	8	5.6889			
Infosys Industry						
Between Groups	1.4427	1	1.4427	0.1844	0.6790	5.3177
Within Groups	62.6035	8	7.8254			
Kansai Nerolac Paints Company						
Between Groups	6.3803	1	6.3803	2.7460	0.1361	5.3177
Within Groups	18.5882	8	2.3235			

Source: Compiled by Author

In table 6, One Way ANOVA test is conducted for the period of pre and post GST. The test is conducted at level of significance i.e. 0.05. The F statistic for Mahindra and Mahindra companies is 0.0073, Ambuja cement is 0.3527, Britannia is 0.1617, Infosys is 0.1844 and Kansai Nerolac paints is 2.7460. The critical value for 5% level of significance is 5.3177. As we see that, F values are lesser than F critical, the hypothesis need to be accepted. So it is found that there is no significant difference in the pre and post implementation abnormal returns.

Findings

- The study is conducted to find out the impact of GST on Indian capital market. It is found from the study that none of the abnormal returns under Mahindra and Mahindra Company is non-significant as p value is more than the significant level that is .05. Hence, the impact of GST had no significant impact of the stock price movement.
- In Ambuja Cement Industry, we conclude that p value is more than the significant level that is .05. So, the impact of GST had no significant impact on the stock price.
- For Britannia Company, it is found that impact of the GST is insignificant.
- Under Infosys Industry, p value is more than the significant level that is .05. So abnormal return is insignificant.
- It is found from study that Kansai Nerolac Paints Company had no impact on the price after implementation of GST.
- The result of pre and post GST of Mahindra and Mahindra, Ambuja Cement, Britannia Company, Infosys Industry and Kansai Nerolac Paints industries is that is accepts the null hypothesis.

Conclusion

From the above information we conclude that GST was launched on 1 July 2017. It is made under four-chunk rate of 5%, 12%, 18% and 28% and it follows the dual model of tax that is central and state government. Secondary data is used as methodology. We have taken five industries that is Automobile, Cement, FMCG, IT and Paint industry data of BSE before and after implementation of GST. The result after testing came out is that it accepts null hypothesis. It means that there is no significant difference between pre and post GST.

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