AN EMPIRICAL ANALYSIS OF THE EFFECT OF UNION BUDGET ANNOUNCEMENTS ON INDIAN STOCK MARKET RETURNS

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ABSTRACT

Every year, the government releases the union budget, a significant policy statement intended to usher in waves of economic reforms determined by the nation's economic circumstances. It is the government's annual disclosure of receipts and outlays for the year beginning on April 1 and ending on March 31. Information must be reflected in stock prices due to capital market efficiency; the extent and kind of this reflection relies on the type of efficiency that exists within the economy. Like any other significant policy statement, the Union budget 2023 is a yearly important policy announcement to usher in waves of economic reforms that are judged required by the nation's economic conditions. It is the yearly estimate statement. This research tries to apply event study analysis to examine how the introduction of the budget for 2023 affected the Indian stock market. The market is semi-strong and efficient, and the introduction of the budget has a negative impact on it, according to our study's results, which are analysed using the Event Study. The announcement of the budget has different effects on different sectors.

Keywords: Stock Market Index, Event Study, Returns, Market Efficiency, News Announcement

INTRODUCTION

The stock market is susceptible to a barrage of information that is periodically offered to the public. The country's capital markets' effectiveness as a market determines how much any news will affect the equities. Developed or emerging economies offer possibilities and strategies to profit from the anomalous return displayed in them; the informational efficiency bears the responsibility for this. The government's policy statement affects the financial markets, just like any other event, the Union Budget. Union budget and financial market performance is closely related. The stock market does better in economies with strong growth rates than in those with low growth rates.

This year's government plan is part of the union budget. A well-crafted budget provides guidance for investment decisions and serves as a roadmap for policy formulation by the government. The government can forecast the nation's economic growth and comprehend the effects of various measures with the aid of the union budget.

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LITERATURE REVIEW

An event study analysis is a method used to evaluate how investors react to economic events that may be political or economic in nature, such as budget announcements, policy changes, management structure changes, or dividend declarations. Several studies have attempted to analyse the influence of these events by using event study analysis. Initially, Fama, Fischer, Jensen, and Roll (1969) studied the reaction of the stock market to stock splits using this methodology. Since then, several academics have embraced the methodology to examine aberrant returns that are reflected in the behaviour of the stock market. When the Indian stock market is examined in the context of its semi-annual dividend announcement, Obaidullah (1990) finds that the stock market is semi-strongly efficient.

Shuchi Gupta and Neetu Mehndiratta (2010) found no evidence of any notable anomalous returns on the day of the incident or in the period leading up to it. The announcement of a dividend was the event in question. The stock market saw an uptick in activity following the announcement, according to the experts. Dividend policy is something that shareholders should be interested in, according to Shaveta Gupta (2012) disparity between insider and shareholder knowledge of the information that could be the source of the anomalous stock market reaction inefficiency of the market Using an even study technique, Md. Lutfor Rahmon, Md. Mohammad Ruhul Amin, and Md. Noman Siddikee (2012) investigated the reaction of the stock market to various dividend forms and did not discover any clear evidence of abnormal returns on the day of the event. However, the researcher saw noticeably negative returns when stock dividends were paid out before the announcement date. There is a positive correlation between an increase in dividend payout and the stock market Drs. Sukhjeet K. Matharu and Ravi Changle (2015). According to Dinh Bao Ngoc and Nguyen Chi Cuong (2016), the stock market benefits from dividend announcements, and the response is generally positive on the day of announcement. The stock price rises before the ex-dividend date and falls after it, the researchers discovered. When using the event research technique, Amit Balkrishna Joshi, and Dr. Manas Mayur (2017) found that stock dividend announcements typically include a perceived disparity in shareholder wealth. Because of the dividend signaling effect, the researchers discovered that investors saw stock dividend announcements as advantageous. Using the event study technique, Rane Anjali, and Guntur Anjana Raju (2017) found that dividend declarations had a substantial effect on the stock market. The researchers discovered that share prices are significantly impacted by knowledge about dividend announcements. The stock market influences anomalous returns after a dividend announcement and has a dividend signaling effect. Mohanty (2004) found that stocks responded significantly to news that was in the public domain when he utilised the event research technique to investigate how the revelation of certain policy concerns affected the stock market. Rao (1997) employed the event research technique to examine the impact of macroeconomic events, particularly the credit policy announcement and the union budget, on the stock market. The study was conducted between 1991 and 1995. The study discovered that although there was a positive association between budgets and stock market volatility, there was no discernible pattern in the stock market's behaviour in reaction to statements about credit policy. Mohanty (2004) found that stocks responded significantly to news that was in the public domain when he utilised the event research technique to investigate how the revelation of certain policy concerns affected the stock market. Rao (1997) employed the event research technique to examine the impact of macroeconomic events, particularly the credit policy announcement and the union budget, on the stock market. The research was carried out from 1991 to 1995. The analysis found no clear pattern in the stock market's behaviour in response to pronouncements about credit policy, despite a significant correlation between budgets and stock market volatility. Thomas and Ajay Shah looked at how the Indian stock market responded to the release of the union budget in 2002, but they were unable to locate any solid evidence about how the market responded to the announcement. Upon noting that there is neither an overreaction nor an underreaction to announcements, the study concluded that the Indian stock markets are semi-strong efficient. Gupta and Kundu (2006) used applied event analysis to look at the return variance and volatility in the Sensex in response to the union budget. After analyzing the effects over various time periods, the researcher discovered that the post-budget period saw the largest market reaction in the short term as opposed to the medium or long term. The study also noticed that volatility and average returns did not rise beyond the budgetary time. To examine the effects of Sri Lankan government budget announcements, Ranjani, Sujeewa, and Rathnasiri (2009) used the event research technique on the All-Share Price Index (ASPI) and Milanka Price Index (MPI) stock exchange indexes. In the event window, the researcher noticed a decline in the indices. The investigator ascribed these unfavorable reactions to modifications in tax policies. Anil Soni and Jalandhar (2010) examined the effects of monetary policy changes and budget announcements on the stock market. According to Singh and Kansal (2010) &Varadharajan and Vikkraman (2011) examined the effects of the budget announcement on the SENSEX, BSE 100, NIFTY, and NIFTY JUNIOR—the four main Indian stock market indices—during the period of 2002 to 2011. They discovered that volatility increased following the budget announcement in comparison to the pre-budget period. The researchers found that the indices had negative returns in the post-budget period. Additionally, the researchers discovered that in comparison to NIFTY and NIFTY JUNIOR, SENSEX and BSE 100 reflected a greater standard deviation. When Kutchu (2012) examined how the introduction of the union budget affected six specific sector indexes, he discovered that the stock market was showing unusual returns. The investigator did not discover any conclusive proof of the budget announcement's effect on the stock market as a whole or any industry. The study came to a semi-strong efficiency conclusion for the Indian stock market. (2013) S. Babu and Dr. M. Venkateswaralu studied the changes in Indian stock prices following the release of Union Budgets. The researchers found that the effects of budgets are only noticeable up to fifteen days after they are announced. Additionally, the researchers saw that the impact's amplitude decreased over time and was most noticeable on and around budget day. When Singhvi (2014) used the event research technique to look at how the Nifty stock market responded to the release of the budget both before and after it was made, she found that the returns were higher on the event date than they were on the pre-announcement date. Additionally, the researchers found no conclusive evidence of a significant influence on Nifty returns over the short, medium, and long term. In the short term, stock markets in the US, UK, and India react to budget releases with notable anomalous returns (Khanna & Gogia, 2014). A detailed study of stock market reactions to union budget releases for the years 1993-2014 was conducted by R. Deepak and N. Bhavya (2014). Sectoral indices served as the study's foundation. During the study period, the researchers did not see any notable fluctuations in the stock market or unusual returns. The researchers concluded that because the market eventually tends to correct itself, investors cannot rely on shorter time frame replies. According to research conducted in 2015 by Divya Verma Gakhar, Ms. Neha Kushwaha, and Ms. Vinita Ashok, the CNX NIFTY is not much impacted by budget. The researchers found that after the budget is announced, the impact of the budget increases in the short term, decreases in the medium term, and eventually disappears.

RESEARCH GAP

Numerous reports have detailed the performance of the stock market or investors' reactions to the introduction of the Union Budget 2020, but no study has conducted empirical assessments to quantify the impact.

OBJECTIVE OF THE STUDY

To investigate the impact of the announcement of Union Budget on the stock market.

To analyse the abnormal returns around the event date.

RESEARCH METHODOLOGY

Event study has tested Semi strong efficiency of the market in the study of Fama, Fisher Jensen Roll, and Bownand Warner (1980). This research study has used event study to test efficiency of the market.

Data and Data Sources

The data used in this empirical study came from secondary sources because it was an analytical investigation. Sectoral indices of the NSE were selected for the study.

The sectors included are Auto sector, Banking sector, Consumer Durables sector, Financial Services sector, IT, Media, Metal, Pharma, Real Estate, and FMCG are among the industries taken into consideration. The modified closing prices for the selected indices were gathered via the NSE website for research purposes.

Methodology

To measure the effect of the Union Budget release on security returns, event study methodology is employed. The study's relevant event is the Union Budget announcement on February 1, 2023. The event window is formed by the union budget announcement date, which is represented by zero, and the periods before and after, which are indicated by -10 and +10, respectively. The window estimation period which has been used for the study is one hundred and fifty days prior to the occurrence. Previous studies had found that a maximum of 240 days was necessary to capture the effect on anomalous returns. There is not enough time in the event window to fully assess the impact of the budget announcement. The NSE India provides the closing values for several sectoral indexes, including the market index Nifty and the following: automotive, banking, IT, FMCG, financial services, metal, media, pharmaceutical, real estate, and consumer durables. Previous research has computed abnormal returns using a variety of multivariate models, market models, and event clustering techniques. The Market Model is employed in this study to determine the expected return. The difference between the stock return and the normal return has been used to compute the abnormal return. The cumulative (CAGR) for one, two, five, and ten days has been calculated.

Tools Used for Analysis CAGR testing has been conducted using the T statistic.

Hypothesis:

H1: The announcement of the Union Budget did not result in any noteworthy cumulative abnormal return (CAR) within the event window.

H2: Abnormal Returns do not exhibit similarity across various sectors.

DATA ANALYSIS AND DISCUSSIONS

The market index's return by taking the closing values of the Nifty and other sectors, Nifty and stock are calculated. The Market Model, which Coutts (1994) also employed in his study, is utilised to compute the normal return. The calculation of the abnormal return involves deducting the stock return from the normal return. Table 1 displays the values of alpha, beta, and standard deviation for the different sectors. The metal, bank, and automobile sectors are more volatile than the markets with beta values greater than 1. The standard deviation is less than one in every sector. The abnormal return is the difference between the stock return for one, two, five, and ten days before and after the occurrence, as shown in Table 2, and the usual return determined by the market model. In the consumer durable and pharmaceutical sectors, the anomalous return is primarily negative. Furthermore, there isn't any discernible trend in the aberrant return. The cumulative abnormal return is displayed in Table 3 for the following time periods: three days, two days before and after the incident, five days, eleven days, five days before and after the event, and twenty-one days, ten days before and after the event. Except for banking and financial services, every sector's cumulative abnormal return is nearly negative. Except for the banking and automotive sectors, none of the sectors have a substantial T statistic. The findings support hypothesis 3, which states that abnormal returns do not show similarities across industries. Specifically, the abnormal returns for all industries except banking and financial services are negative, and they are only significant for the banking sector one to two days before the event and the auto sector ten days after it occurs

Table 1: Analysis of Risk of various Sectors of NSE

Parameters/ Sectors	Auto	Bank	Consumer Durable	Financial Service	IT	Media	Metal	Pharma	Realty	FMCG
Alpha	-1.534	-1.394	0.268	-0.264	0.745	-0.112	-0.403	0.371	-0.216	0.279
Beta	2.534	1.394	0.739	1.264	0.355	1.111	1.403	0.629	1.217	0.721
STDEV	0.009	0.006	0.08	0.005	0.01	0.016	0.022	0.01	0.011	0.005

Table 2; NSE Abnormal Return of various sectors

Window	Auto	Bank	Consumer Durable	Financial Service	IT	Media	Metal	Pharma	Realty	FMCG
-1	-0.002	0.015	0.004	0.009	-0.991	0.043	-0.014	-0.008	0.019	-0.001
-2	0.505	0.018	-0.004	0.015	-1.221	0.000	-0.016	-0.024	0.023	-0.111
-5	0.014	0.021	-0.027	0.021	-0.633	0.102	-0.049	-0.004	0.032	-0.006
-10	0.009	0.022	-0.063	0.021	-0.236	0.027	-0.059	-0.004	0.052	0.003

1	0.008	0.001	-0.002	-0.001	-1.504	0.01	0.007	-0.008	0.011	0.005
2	-0.014	-0.009	-0.004	-0.002	-0.172	-0.013	0.008	-0.003	0.01	-0.002
5	-0.033	-0.005	-0.013	0.005	0.119	0.004	0.04	0.017	0.001	-0.007
10	-0.065	-0.018	-0.057	0	0.422	0.01	0.004	0.015	-0.036	-0.013

Table 3 Cumulative (CAR) of various Sectors of NSE

Window	Auto	Bank	Consumer Durable	Financial Service	IT	Media	Metal	Pharma	Realty	FMCG
3.000	0.019	0.019	-0.019	0.001	-0.549	-0.002	-0.006	-0.016	-0.020	0.003
5.000	0.005	0.012	-0.028	0.006	-0.191	-0.028	-0.007	-0.027	-0.016	-0.013
11.000	-0.006	0.018	-0.060	0.019	0.118	-0.009	-0.008	0.014	-0.016	-0.013
21.000	-0.043	0.007	-0.140	0.014	0.534	0.023	-0.054	0.011	-0.033	-0.011

Table4 National stock Exchange Sectors – T Statistic

Window	Auto	Bank	Consumer Durable	Financial Service	IT	Media	Metal	Pharma	Realty	FMCG
-1.000	-0.224	2.46934*	0.054	1.723	-0.991	0.157	-1.105	-0.824	1.632	-0.165
-2.000	0.384	2.16169*	-0.032	1.938	-1.221	-0.013	-0.93	-1.737	1.433	-1.461
-5.000	0.652	1.545	-0.15	1.751	-0.633	0.049	-1.739	-0.167	1.258	-0.476
-10.000	0.301	1.184	-0.248	1.218	-0.136	0.538	-1.488	-0.143	1.455	-0.198
1.000	0.824	0.245	-0.03	-0.22	-1.504	0.617	-0.569	-0.84	0.948	-0.936
2.000	-1.027	-1.015	-0.132	-0.206	-0.172	-0.59	-0.36	-0.245	0.59	-0.228
5	-1.568	-0.381	-0.072	0.408	0.119	0.109	-1.425	0.786	0.034	-0.584
10	-2.1786*	-0.932	-0.224	0.017	0.422	0.205	0.103	0.496	-1.006	-0.792

Table 5. Statistics of Cumulative Abnormal Return of various sectors at National stock Exchange

Window	Auto	Bank	Consumer Durable	Financial Service	IT	Media	Metal	Pharma	Realty	FMCG
2.000	1.250	1.793	-0.134	0.126	-0.549	-0.175	-0.254	-0.833	-0.990	0.361
5.000	0.115	0.400	-0.155	0.477	-0.191	-0.786	-0.255	-1.232	-0.541	-1.134
11.000	-0.198	0.902	-0.127	1.038	0.218	-0.166	-0.184	0.432	-0.424	-0.759
21.000	-0.987	0.258	-0.381	0.550	0.534	0.316	-0.935	0.254	-0.628	-0.442

Impact of Budget Announcement Across various sectors:

Since the market is efficient and semi-strong, investors cannot expect abnormal gains. Every industry is showing anomalous returns that lack statistical significance. The banking sector and the automobile sector both show statistically significant anomalous returns two days prior to and ten days following the event, respectively. Since the market is efficient and semi-strong, investors cannot expect abnormal gains. Every industry is showing anomalous returns that lack statistical significance. Two days before and ten days after the occurrence, respectively, the banking and auto sectors exhibit statistically significant anomalous returns. An investor can only receive an abnormal return in certain sectors. The fact that the publishing of the budget had no impact on any other area of the economy suggests that the stock market uses publicly available information and prevents investors from obtaining atypical returns.

CONCLUSION, LIMITATIONS & FUTURE SCOPE

The study looked at how the announcement of the Union Budget affected the stock market, specifically how the NSE's sectoral indices responded. A closer look at the data reveals that Union Budget stock market prices had no discernible effect over the study period. Additionally, it was noted that the CAR was not particularly large and that the incident under examination had no significant impact on any of the sectors. Out of all the industries that were examined, only the banking and automotive sectors showed anomalous returns. The impact of the introduction of the Union Budget was merely temporary, and it quickly subsided. Thus, this study suggests that the announcement of the Union Budget has no discernible effect on the stock market.

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