# IMPACT OF RESULT ANNOUNCEMENTS ON THE PERFORMANCE OF STOCK PRICES: A STUDY OF BANKING STOCKS 

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#### Abstract

Announcement of results is said to be delivering the information of performance to its stakeholders. Quarterly results are being disclosed which shows the clear position of the company. If earnings are higher than previous quarters it is being enjoyed by the market and higher earnings are imbibed with the higher returns as well.

The quarterly results are like a report card which shows the financial health of the company. This disclosure provides the information of any changes from previous quarter and it also reflects the material events if it has happened in that company. The announcements of result are specific and unique to every company. For the purpose of this event study which examines the effect of event (result announcement) on stock prices, event windows is limited to 31 days in which returns are calculated for 30 days. The study will reveal the abnormal returns during the period of pre and post announcement of results. The research work is based on the stock prices movement of banks which are listed in Bombay Stock Exchange (BSE). Banks will be selected. The 15 days period prior to announcement and 15 days period post announcement will be taken for the purpose of the study. The paper will analyze whether these announcement helps investors in gaining the returns in shorter or a longer while.


Keywords: Quarterly result, Pre and post announcement, Event window, Abnormal returns, Financial health

## Introduction

The published financial statements are the key contents which are freely available to investors. The quarterly reports are considered to be the mode of the reliable information for investors for evaluating and analyzing the performance of an entity and future projections as well. The corporate results every quarter creates so many activities and it is a general phenomenon that the announcement of quarterly results leaves a remarkable sign on the mindset of investors. These quarterly reports includes financial statements, happenings of management and other material events like Corporate Restructuring, Mergers \& Acquisitions, Dividend, Stock Splits,

[^0]Bonus etc. The Securities and Exchange Board of India (SEBI) has tightened the disclosure norms for listed companies. After the global financial crisis which hit the market and investors severely it has become imperative for investors to get access to the asset-liability position of a company so that they can get the information regarding the solvency status of the respective company. The companies have to report audited or unaudited quarterly results on a standalone or consolidated basis within 45 days of every quarter.
Quarterly reports are considered to be the centre point as far as stock market is concerned. The stock prices tend to react instantly as results are going to be come out. Companies are evaluated for considering a good investment option if they go beyond the market expectations. If an entity go beyond the market expectations, it is being seen the jump in stock prices. If an entity does not perform as per the expectation or it is just touch the line of expectation the share price generally does not fly. If the company performs well quarter after quarter it can be said that stock is better for investment purpose. These quarter reports provides timely and accurate information than annual reporting as investor can assess the performance frequently and the manipulation of accounting information can be given a signal of red light to some extent.

## Background of the study

The disclosure of results facilitates the companies to be in contact with the outside world. This can help in reducing the leakage of information as insider trading to some extent. The disclosure helps in transparency in terms of disclosing the financial and other non-financial information through which the short term position of companies can be easily judged which ultimately gives direction to longer path. The stock market prices value these quarterly results as the Efficient Market Hypothesis (EMH) says that market tends to react with the available information instantly which generates the normal returns and investor should not look forward for abnormal returns.
Efficient Market Hypothesis emerged in 1960's and in 1970's Eugene Fama published a review for the hypothesis. This includes three forms of the market-Weak, Semi-Strong \& Strong. Weak Form asserts that past information of stocks reflect in present stock prices. Semi-Strong Form asserts that prices reflect past information very quickly and thus not generate any abnormal return and Strong form asserts that markets are full of information and because of that an investor cannot earn the return excess from market regularly as stock market discounts every bits and bytes of information.
The event study approach helps to evaluate the impact of an event on the value as a result. It classically analyzes the security price reaction to the event. The event can have both positive and negative effect. This approach helps in finding out the abnormal returns which are being associated with the event. This can be observed by adjusting the returns of the security with the volatile stock market returns.
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## Quarterly Results- a mode of delivering the results

In India, the interim report is mandatory by the cushion of Clause 41 of the listing agreement between the companies and the stock exchanges. The quarterly results give the mirror look to the happenings of an entity which ultimately delivers the transparency. This mode of communication to outside world has given a watch dog view to some extent to the investors. This concept has safeguarded the interest of investors from price sensitive information or insider trading and investor can quickly take the decision whether to buy, hold or sell the security.

## Review of related literature

Earlier researches show that annual reports give the positive impact on the stock prices. Like Fama, Fisher, Jensen, Roll, 1969 had given basis in their study that successive price changes moves with an "efficient" market, i.e., a market that adjusts rapidly to new information. And also indicates announcements of expected income from shares fully reflected in the price of a share at least by the end of the same month and probably immediately after the announcement date. Same results were drawn in the research of Jhones and Litzenberger, 1970 that investors spends millions of dollars annually to collect the publishing data of companies and believes that early knowledge of intermediate stock price trends through the analysis of internal and external factors having a potential effect on the intrinsic value of a firm's stock.
Another study reveals opposite results and proves that there is a negative correlation between earnings announcement and standardized unexpected earnings. The study shows that there is no incremental information content beyond earnings except that the direction of the effect is negative (Cheng Fan-fah. Shamsher Mohd Annuar Nasir, 2001).
On the contrary Philip Brown Frank J. Finn, Phillip Hancock, 1977 give evidences that profit and dividend changes are positively correlated, and were associated with significant share price changes, after adjusting the effects of the market. When profit and dividend reports gave conflicting signals, share prices tends to decline and ultimately moves with the dividend and profit results of the firm.
Russell Lundholm Linda A. Myers, 2002 also supports the above statements that the firm disclosures affects stock returns and annual future earnings so as current returns reflect more future earnings of stocks. It also states that changes in disclosure activity are positively related to changes in the importance of future earnings news for current returns. Firm's material event does not reflect in the happenings of the current positions but it incorporates into the current stock prices.

Ray Ball, 1992 reviewed that predictability of abnormal returns after earning announcements has become one of the most significant factor for investors. Ball also states that there is a true relationship between earnings information and abnormal returns whereas errors in estimating abnormal returns reflect inefficiency in market.

Bernard and Thomas, 1990 partially supports these evidences and concluded that stock prices partially reflect earnings expectation and future earnings also affects by risk adjustment and the impact of transactions costs but these fluctuation in stock prices not respond completely and immediately to publicly announced earnings information.
Study of Jordan, R. J, 1973 indicates that the third quarter results more affects the stock prices as compared to second and first quarter. This research also supports that share prices of high growth companies adjust to earnings information differently than do the shares of medium and low growth firms. In total our results seem to be consistent with the "loose" form of the efficient markets hypothesis. Whereas unique results show in the study of Saravanakumar, Mahadevan, Subramaniam \& Aarthy, 2012 not only the earnings announcement and stock returns data can provide the profitable guide to investment timing or improve a portfolio's rate of return. There are various other factors that influence the movement of share price and hence the return. The performance of the company as disclosed by the earnings result is one among them.

## Objective of the study

The principal objective of this paper is to scrutinize the response of the stock prices in the region of quarterly announcement area. The basic aim is to check whether the market reacts with the announcement of quarterly earnings or not. In this reference the trends of share prices has been evaluated in pre and post result announcements period.

## Event Study Approach

Event study can let drop the relevant information for how a security is akin to response to a given event. For evaluating the impact of any event on stock prices the first and foremost work is to give spotlight on "Event Window". For this research work the data-set is taken for 31 days in which 15 days period before the result announcement and 15 days period after the result announcement has been taken. The announcement date is taken as $t=0$, event window is of 31 days. 15 days period before the announcement has considered as pre-window and 15 days period after the announcement has been considered as post-event window.
The impact of event (quarterly result announcement) is being examined in this research paper on stock prices. The Bankex of Bombay Stock Exchange (BSE) has been taken which includes 14 banks. The list of 14 bank incorporates- State Bank of India, Axis Bank, Bank of India, Federal Bank, Bank of Baroda, Punjab National Bank, Yes Bank, Union Bank, HDFC Bank, ICICI Bank, Kotak Bank, Indusind Bank, Canara Bank \& IDBI Bank. The first quarter result announcement date is taken as $t=0$. To explore the impact of result announcements, abnormal returns have been calculated and Market Adjusted Return Method is being used. For calculating the abnormal returns following method is adopted.

$$
E i t_{\mathrm{it}}=\mathrm{R}_{\mathrm{it}}-R_{\mathrm{mt}}
$$

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Where,
Eit $_{\text {it }}$ is the abnormal return for security i on a trading day
$\mathrm{R}_{\mathrm{it}}$ is the return of a security on a trading day
$\mathrm{R}_{\mathrm{mt}}$ is the return of the market on a trading day
If return of the security is equal to the market return there are not the possibilities of earning abnormal returns but if return of the security differs from market returns their exists the abnormal returns. Eit indicates the change in individual stock's due to the results announcement. For calculating the market return 30 scrips movement of Bombay Stock Exchange (BSE) i.e. Sensex point is being taken. The calculation of return of security and return of market has been done by using the formula $\left(\boldsymbol{P}_{\boldsymbol{t}}-\boldsymbol{P}_{t-1}\right)$. Each trading day session's return for both security and market has been calculated. After that Cumulative Abnormal Returns (CAR) has been calculated to see the impact whether the result announcements have some relation with the movement of stock prices and returns as well or not. This CAR measures the security's total return over the time period ranging from the pre and post event window including the announcement day.

Table 1 :Values of Abnormal Returns and Cumulative Abnormal Returns

|  | AXIS Bank |  | Bank of India |  | Bank of Baroda |  | Canara Bank |  | Federal Bank |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Day | Abnormal Return | CR of <br> Axis | Abnormal Return | $\begin{gathered} \text { CR of } \\ \text { BOI } \\ \hline \end{gathered}$ | Abnormal Return | $\begin{aligned} & \text { CR of } \\ & \text { BOB } \\ & \hline \end{aligned}$ | Abnormal Return | $\begin{aligned} & \text { CR of } \\ & \text { CAN } \\ & \hline \end{aligned}$ | Abnormal Return | CR of <br> Federal |
| -15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -14 | 0.0143 | 0.0143 | 0.0015 | 0.0015 | -0.0021 | -0.0021 | -0.0096 | -0.0096 | 0.0075 | 0.0075 |
| -13 | -0.0012 | 0.0131 | -0.0015 | 0.0001 | -0.0040 | -0.0061 | 0.0035 | -0.0062 | 0.0001 | 0.0076 |
| -12 | -0.0108 | 0.0023 | -0.0224 | -0.0223 | -0.0114 | -0.0175 | -0.0183 | -0.0245 | 0.0070 | 0.0146 |
| -11 | -0.0030 | -0.0007 | 0.0164 | -0.0059 | 0.0095 | -0.0080 | 0.0111 | -0.0134 | 0.0054 | 0.0200 |
| -10 | -0.0067 | -0.0074 | -0.0064 | -0.0123 | -0.0046 | -0.0125 | -0.0092 | -0.0226 | 0.0101 | 0.0300 |
| -9 | -0.0257 | -0.0331 | 0.0061 | -0.0062 | 0.0131 | 0.0006 | 0.0201 | -0.0025 | 0.0030 | 0.0331 |
| -8 | 0.0184 | -0.0147 | -0.0121 | -0.0183 | -0.0062 | -0.0056 | -0.0025 | -0.0050 | -0.0006 | 0.0325 |
| -7 | -0.0040 | -0.0187 | -0.0024 | -0.0207 | 0.0005 | -0.0051 | 0.0078 | 0.0028 | -0.0079 | 0.0246 |
| -6 | 0.0028 | -0.0160 | 0.0102 | -0.0105 | 0.0060 | 0.0008 | 0.0109 | 0.0137 | -0.0129 | 0.0117 |
| -5 | -0.0058 | -0.0218 | 0.0149 | 0.0044 | 0.0154 | 0.0162 | -0.0031 | 0.0106 | 0.0056 | 0.0173 |
| -4 | -0.0003 | -0.0220 | -0.0067 | -0.0023 | -0.0070 | 0.0093 | -0.0172 | -0.0065 | 0.0158 | 0.0331 |
| -3 | -0.0009 | -0.0229 | -0.0009 | -0.0032 | 0.0003 | 0.0096 | 0.0002 | -0.0063 | 0.0159 | 0.0490 |
| -2 | -0.0021 | -0.0251 | 0.0062 | 0.0030 | 0.0048 | 0.0144 | -0.0063 | -0.0126 | 0.0270 | 0.0760 |

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| -1 | -0.0125 | -0.0376 | 0.0026 | 0.0056 | 0.0042 | 0.0186 | -0.0008 | -0.0134 | 0.0320 | 0.1080 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 0.0309 | -0.0067 | -0.0367 | -0.0312 | -0.0223 | -0.0037 | -0.0293 | -0.0427 | 0.0391 | 0.1471 |
| 1 | 0.0231 | 0.0164 | -0.0177 | -0.0489 | 0.0060 | 0.0024 | -0.0235 | -0.0662 | 0.0686 | 0.2157 |
| 2 | 0.0057 | 0.0222 | 0.0088 | -0.0401 | 0.0101 | 0.0125 | -0.0364 | -0.1027 | 0.1151 | 0.3309 |
| 3 | -0.0103 | 0.0118 | 0.0310 | -0.0091 | -0.0077 | 0.0048 | -0.0222 | -0.1249 | 0.1296 | 0.4605 |
| 4 | 0.0104 | 0.0222 | -0.0279 | -0.0369 | -0.0009 | 0.0039 | -0.0312 | -0.1560 | 0.1600 | 0.6204 |
| 5 | 0.0317 | 0.0539 | -0.0164 | -0.0533 | 0.0184 | 0.0223 | -0.0061 | -0.1621 | 0.1844 | 0.8049 |
| 6 | 0.0039 | 0.0578 | -0.0069 | -0.0602 | 0.0142 | 0.0366 | 0.0277 | -0.1344 | 0.1710 | 0.9759 |
| 7 | 0.0046 | 0.0624 | 0.0026 | -0.0576 | 0.0087 | 0.0453 | 0.0227 | -0.1117 | 0.1570 | 1.1329 |
| 8 | -0.0166 | 0.0458 | 0.0019 | -0.0558 | 0.0107 | 0.0560 | 0.0176 | -0.0942 | 0.1501 | 1.2830 |
| 9 | -0.0039 | 0.0418 | 0.0044 | -0.0514 | 0.0047 | 0.0607 | 0.0084 | -0.0858 | 0.1465 | 1.4295 |
| 10 | -0.0098 | 0.0320 | 0.0031 | -0.0483 | -0.0113 | 0.0493 | 0.0317 | -0.0541 | 0.1035 | 1.5330 |
| 11 | 0.0124 | 0.0444 | -0.0099 | -0.0582 | -0.0171 | 0.0323 | 0.0205 | -0.0336 | 0.0659 | 1.5989 |
| 12 | -0.0136 | 0.0308 | -0.0169 | -0.0751 | -0.0049 | 0.0274 | -0.0113 | -0.0448 | 0.0723 | 1.6712 |
| 13 | 0.0152 | 0.0460 | -0.0047 | -0.0798 | -0.0244 | 0.0031 | -0.0015 | -0.0464 | 0.0494 | 1.7206 |
| 14 | -0.0255 | 0.0205 | -0.0122 | -0.0920 | -0.0154 | -0.0123 | -0.0421 | -0.0885 | 0.0762 | 1.7968 |
| 15 | 0.0108 | 0.0313 | -0.0371 | -0.1291 | -0.0226 | -0.0349 | 0.0083 | -0.0802 | 0.0452 | 1.8420 |
|  | HDF | Bank | ICIC | Bank | IDBI | Bank | Indus | Bank |  |  |
| Day | Abnormal Return | CR of HDFC | Abnormal Return | CR of ICICI | Abnormal Return | CR of IDBI | Abnormal Return | CR of INDUS | Abnormal Return | CR of <br> Kotak |
| -15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -14 | 0.016 | 0.016 | 0.002 | 0.002 | 0.013 | 0.013 | 0.007 | 0.007 | 0.000 | 0.000 |
| -13 | -0.002 | 0.014 | 0.010 | 0.012 | -0.001 | 0.012 | 0.003 | 0.011 | 0.000 | 0.000 |
| -12 | 0.002 | 0.016 | -0.003 | 0.008 | 0.003 | 0.015 | 0.000 | 0.010 | 0.007 | 0.007 |
| -11 | 0.011 | 0.027 | 0.013 | 0.021 | -0.001 | 0.014 | -0.009 | 0.001 | 0.001 | 0.009 |
| -10 | 0.007 | 0.034 | -0.005 | 0.016 | 0.012 | 0.026 | 0.025 | 0.026 | 0.022 | 0.031 |
| -9 | 0.003 | 0.037 | -0.008 | 0.008 | 0.000 | 0.026 | -0.001 | 0.026 | 0.007 | 0.038 |
| -8 | -0.011 | 0.026 | 0.004 | 0.012 | -0.011 | 0.015 | 0.003 | 0.029 | -0.008 | 0.030 |
| -7 | 0.009 | 0.035 | -0.007 | 0.004 | -0.007 | 0.008 | 0.007 | 0.036 | 0.003 | 0.033 |
| -6 | -0.006 | 0.029 | 0.000 | 0.005 | 0.000 | 0.008 | -0.020 | 0.016 | 0.017 | 0.050 |
| -5 | -0.001 | 0.028 | 0.011 | 0.015 | -0.004 | 0.004 | 0.015 | 0.031 | $-0.013$ | 0.037 |

Impact of result announcements on the

|  | HDFC Bank |  |  | ICICI Bank |  | IDBI Bank |  | Indusind Bank |  | Kotak Bank |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

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|  | PNB Bank | SBI BANK |  |  | Union Bank | Yes Bank |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Day | Abnormal <br> Return | CR of <br> PNB | Abnormal <br> Return | CR of <br> SBI | Abnormal <br> Return | CR of <br> Union | Abnormal <br> Return | CR of |
| YES |  |  |  |  |  |  |  |  |

Source : Computation by authors

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The abnormal returns have been calculated but there is as such no impact being observed. For seeing the cumulative effects, over the period of time of event window of 31 days CAR (Cumulative Abnormal Returns) have been calculated. In the trading session of 31 days each value is less than zero $(<0)$ which shows that there is no impact of result announcements. For testing the significance of CAR, normal deviate for 31 days have been calculated which can be intended by standard deviation. The normal deviate is being measured from CAR and then Standard Deviation is being calculated. Standard deviation gauges the dispersion from the mean value.

Table :Values of CAR, Standard Deviation \& Normal Deviate

| Day | CAR of 14 Banks | Std. Deviation | Normal Deviate |
| :---: | :---: | :---: | :---: |
| -15 | NA | NA | NA |
| -14 | 0.005 | 0.011 | 0.457 |
| -13 | 0.005 | 0.011 | 0.412 |
| -12 | 0.001 | 0.019 | 0.079 |
| -11 | 0.005 | 0.021 | 0.239 |
| -10 | 0.008 | 0.024 | 0.322 |
| -9 | 0.008 | 0.027 | 0.302 |
| -8 | 0.008 | 0.024 | 0.353 |
| -7 | 0.009 | 0.025 | 0.380 |
| -6 | 0.014 | 0.023 | 0.586 |
| -5 | 0.016 | 0.022 | 0.745 |
| -4 | 0.014 | 0.025 | 0.555 |
| -3 | -0.041 | 0.211 | -0.192 |
| -2 | -0.045 | 0.208 | -0.215 |
| -1 | -0.053 | 0.201 | -0.263 |
| 0 | -0.054 | 0.206 | -0.263 |
| 1 | -0.059 | 0.208 | -0.282 |
| 2 | -0.066 | 0.211 | -0.312 |
| 3 | -0.069 | 0.210 | -0.328 |
| 4 | -0.073 | 0.211 | -0.344 |
| 5 | -0.069 | 0.212 | -0.327 |
| 6 | -0.067 | 0.209 | -0.320 |
| 7 | -0.063 | 0.215 | -0.295 |
| 8 | -0.058 | 0.217 | -0.269 |
| 9 | -0.059 | 0.218 | -0.269 |
| 10 | -0.055 | 0.217 | -0.256 |
| 11 | -0.054 | 0.217 | -0.248 |
| 12 | -0.066 | 0.215 | -0.306 |
| 13 | -0.071 | 0.208 | -0.339 |
| 14 | -0.076 | 0.209 | -0.365 |
| 15 | -0.080 | 0.205 | -0.393 |

Source : Computation by authors

## Conclusion

If we look at the value of normal deviate it ranges from -0.393 to +0.745 . If quarter results are positive and if results go beyond the market participant expectations, the response of the market for that particular security expectations the market follows the upward trend and vice or versa. It is being inferred from the event window of 31 days, just before the $5^{\text {th }}$ day of the announcement the eit is highest and the return of all other days is less than that of day $5^{\text {th }}$ prior to the result announcement. For testing the significance of normal deviate two tailed $t$-test is being applied. The table value on 13 Degree of Freedom ( $\mathrm{n}-1,14-1$ ) at $5 \%$ level of significance is 2.160 . None of the value of normal deviate exceeds the critical value which provides evidence that statistically there is no significance. The value of normal deviate is negative from 3 days prior to the announcement up to the $15^{\text {th }}$ day of the announcement which shows that there is the negative return in the security and performance in share market is not good. The impact of result announcement is not significant in any of the day. This can be inferred that investors become very vigilant when results are going to be announced. If sentiments of investors turn negative they harvest their money from the stock market and slowly the impact is being seen in the prices of the stock.
As the values are less than zero $(<0)$ in the post-announcement window it asserts the strong form of the Efficient Market Hypothesis. As soon as the information is available, it reflects in the prices of securities. Even if there is any hidden information, it is being reflected in the prices of the security. This surpasses the notion of not earning abnormal returns. Investors have unlayered their traditional mindset and the frequency of information and access to information to investors is being widened over the years.

## Further Scope of the Study

Stock market is always influenced by macro-economic factors. Hence, the result announcement event is supported by several other factors which are not incorporated in this study. The confounding factors are not eliminated. For evaluating the impact, other quarters too can be incorporated for viewing the other forms of the Efficient Market Hypothesis.

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