Impact of Dividend Declaration on Stock Prices: A Study of Indian Banking Sector

Abstract

Corporate events have a significant impact on share price movements as proclaimed in numerous past researches. In order to explore further, this research paper aims to analyse the effect of dividend declaration on the stock prices of banks by using the event study methodology. Selected banks are taken into consideration for the purpose of this study. The corporate event, i.e., dividend declaration, is tested to analyse the impact on abnormal returns and the liquidity position. The data related to the year 2012 is used to evaluate the abnormal returns and change in the liquidity position. Thus, the paper examines the price and liquidity effects related to the dividend announcement by using an event study approach. Based on the findings, the study concludes that there is no significant effect on the stock price movements of the selected banks under study. The results provide sufficient evidence to support a mixed effect on the abnormal returns associated with the period prior to the corporate announcement and immediately after it. The study also provides evidence to support the fact that a significant improvement is observed in the volume of trading prior to the event and the effective day of dividend declaration. It also manifests a significant impact on the liquidity position in the event window of -120 and +30 days. The study offers significant managerial implications to analyse and plan the corporate events by the banks in the aforesaid window around the event.

Key words: Stock market, abnormal returns, Indian banking sector, dividend announcement.

Introduction

Various past researches show that the declaration of a high dividend usually attracts positive returns on the stock investments and the issues with a low dividend are associated with negative return as well as have a stronger effect than retained earnings. Dividend refers to that part of undistributed profits which is announced and then paid to the company shareholders. The decision on the amount of dividend declaration is taken by the board of directors in a company’s
annual general meeting. It is not mandatory for any company to pay dividend, but if the company does this, it is expected to have a positive impact on the company’s goodwill. The amount of dividend paid to the shareholders is a taxable income for them. In the field of corporate finance, dividend policy is widely studied from varied aspects. The dividend policy adopted by a firm depicts the division of corporate earnings as dividend to the shareholders and the retained earnings as reinvestment in the business (Weston, Copeland and Shastri, 2004). Miller and Modigliani (1961) gave a theory, which states that the shareholders should be indifferent towards the decision taken by the company, i.e., whether to distribute the earnings or retain them for strengthening the company’s financial position. The assumption of a perfect capital market is not a realistic assumption. There are two diverse perspectives about the stock prices and the dividend policy followed by the company. Some researchers argue that dividends have more impact on share prices as shareholders prefer current return over future returns. They consider dividend distribution as an indicator of a company’s future earning capability. On the contrary, another group of researchers believes that retained earnings have more impact on the stock prices and they are a clear indicator of future upcoming investment opportunities for the company.

Numerous empirical researches have been conducted on the impact of dividend declaration and the results obtained are quite diverse in nature. Some researchers found that there is a positive relationship between the dividend policy followed by companies and the dividend theories. Some studies depict a significant impact of dividend policy on share prices. Thus, the dividend policy should be considered as one of the critical variables in determining the stock prices. As per the efficient market hypothesis, share prices should not be affected by those events that do not contain any information. Also, there should not be any abnormal return on the date or surrounding the date of announcement or effective date, although a few studies do reveal that there are positive abnormal returns on and surrounding the announcement date as well as the effective date. Also, the variance in returns was found to be on the higher side following the effective day. All this evidence is quite confusing and not consistent with each other.

In the current study, numerous hypotheses are formulated to examine the impact of dividend declaration on the stock prices. To study the impact of dividend declaration on the stock prices, a market event study analysis is applied to investigate the hypothesis. An event study methodology refers to a study that analyses the impact of events on the companies. An event study is used to
examine the impact of announcements pertaining to the corporate earnings on the stock prices. To analyse this, the event study methodology requires an event, the event window, the estimation window and the estimation model. The information about these aspects should be finalised in advance.

Event is what the investigator would like to study. In the current study, the event is the dividend declaration by the selected banks. Event window is the period in which the event actually occurs. It generally includes three days: -1, 0, +1(ED, AD). In our study, the pre-, current and post-announcement dates are considered as event windows for all the selected organisations. The estimation window comprises -120, +30 trading days.

**Event Study Methodology**

The event study methodology examines the impact of events on particular dependent variables under the study. Generally, a company’s stock price acts as a dependent variable and various events are likely to have an impact on it. The event methodology studies the change in the stock prices beyond the expectations of the investors, which is termed as abnormal returns. These returns are observed over a particular time period, which is referred to as an event window. These abnormal returns are considered to be an effect of the event. The event study helps in analysing whether a particular event is significant enough to create an abnormal effect on the stock prices.

The event study methodology works on the assumption that the stock market is efficient and, therefore, any kind of an event will affect the stock prices with immediate effect. The methodology allows us to study the impact of an event on the stock prices in different short-period windows.

The event study methodology is a systematic technique that involves the following steps:

**Step 1:**

Select the event that you want to study. Next, collect sufficient data about the event and the companies in which the event took place. The data covering the following aspects must be gathered:

- Announcement date
- Stock prices data (before and after the date of the event)
- Data related to all companies that you want to include in your study

**Step 2:**

Identify the companies to be taken under the study and specify the time duration around the event during which the stock price movements will be studied.

**Step 3:**

Estimate the significant parameters which will help you derive the expected returns during the event window under the study.

**Step 4:**

Estimate the expected earnings by using the CAPM model, the APT model or the regression model. Next, the following equation may be applied to arrive at the abnormal returns on specific days of the event window:

\[
\text{Abnormal returns} = \text{Actual returns} - \text{Expected returns}
\]

**Step 5:**

Finally, the cumulative abnormal returns are computed. To analyse the impact of the event on the returns, the observed figures of the abnormal returns and the cumulative abnormal returns over the event window are plotted on a graph.

The current study had thrown light on the positive trigger or upswing in the share prices of the banks that were taken under study and studied under a one-day window of the event, i.e., the dividend declaration date in the year 2013. The study covered the dividend declaration by the 10 banking sector companies, which include ICICI Bank, Syndicate Bank, ING Vysya Bank, IndusInd Bank,
J&K Bank, Yes Bank, HDFC Bank, Andhra Bank, Punjab National Bank (PNB) and Indian Bank. As far as the Indian stock market is concerned, there are two major stock markets: the National Stock Exchange (NSE) and the Bombay Stock Exchange (BSE). The secondary data for the study is taken from the reports available from these stock markets.

**Review of Literature**

Many studies have been conducted to test the efficiency of the Indian stock market with specific reference to event announcements like dividend, bonus, rights issue, option listing, stock split, merger and acquisitions (M&A), etc.

Diverse reviews of significant studies give a broad spectrum of the concept under study. Gordon (1962) gave importance to the dividend policy of the firm in determining the stock prices. Gordon's model is based on various assumptions. The study concludes that investors give more weightage to the present dividends rather than future capital gain. A positive correlation was found between the dividend pay-out ratio and the stock price. According to James E Walter (1963), dividends do affect the share price significantly. His studies established a correlation between the internal rate of return (r) and the cost of capital of the firm (k), which helped in formulating a dividend policy to maximise the shareholder’s wealth.

Friend and Puckett (1964) ran regression analysis on 110 firms across five different industries (1956–1958), which showed a significant influence of dividends on stock prices.

Another interesting study was conducted by Ramachandran (1985), who analysed the impact of announcements of bonus issue on Indian equity stock prices.

Furthermore, Chawla and Srinivasan (1987) formulated and tested a hypothesis on the impact of dividend retained earnings on changes in stock price of companies in the chemical industry. A similar study by Obaidullah (1992) showed a positive correlation between the stock market and the announcements of bonus issues.
Rao and Geetha (1996), in their study, noticed an abnormal return of 6.31% during the announcement of the bonus issue.

Manandhar (1998) designed a matrix of various factors that impact dividend policy, particularly in Nepal. His study revealed a positive correlation of dividend per share and return on market capitalisation. His study also established a negative correlation of earnings per share, price-earnings ratio and dividend yield on market capitalisation.

Mishra (2005) took a sample of 46 stocks listed on NSE and BSE and analysed the reaction of stock price to the news of bonus issues from 1998 to 2004. He noticed an abnormal upsurge in return about 8–9 days before the announcement.

Malhotra, Thenmozhi and Kumar (2007) examined the share price reaction to the bonus issue announcements that yielded negative abnormal returns around the announcement date. The study also found that there was no information leakage prior to the announcement and the reduction in the liquidity ratio after the announcement was found to be insignificant.

Nazir, Nawaz, Anwar, and Ahmed (2010) not only validated that dividend pay-out, yield, earning and growth have a positive impact on stock prices but also established that size and leverage have a negative insignificant effect on stock prices.

Hussainey, Mgbame and Chijoke-Mgbame (2011) verified a positive correlation between dividend yield and changes in stock prices in the UK market. They also established that parameters like growth rate, earnings, level of debt and size affects the stock prices significantly.

Ananthi and Dinesh (2012) examined the variations in the Indian stock market with respect to the information content of profit booking announcement by conducting an event study. The study highlighted that corporate events were conducted by LIC Housing with profit booking which influenced the stock prices.

**Objectives of the Study**

The present study evaluates the efficiency of the Indian stock market with respect to the declaration of the dividend in the banking sector. The study covers the 2011–2012 period. All the bank scrips are either traded on the NSE or the BSE.
The objectives of the present study are as follows:

1. To identify the impact of dividend announcements on stock prices of various banks in India
2. To test whether the announcement of dividend leads to the meaning of abnormal returns by the investors

**Hypotheses**

- **H₀₁**: Dividend announcement does not have any impact on the share price in the event window of -1 to +1 day.
- **H₀₂**: Dividend announcement does not have any impact on the share price in the event window of -2 to +2 days.
- **H₀₃**: Dividend announcement does not have any impact on the share price in the event window of -3 to +3 days.
- **H₀₄**: Dividend announcement does not have any impact on the share price in the event window of -5 to +5 days.
- **H₀₅**: Dividend announcement does not have any impact on the share price in the event window of -10 to +10 days.
- **H₀₆**: Dividend announcement does not have any impact on the share price in the event window of -15 to +15 days.
- **H₀₇**: Dividend announcement does not have any impact on the share price in the event window of -20 to +20 days.
- **H₀₈**: Dividend announcement does not have any impact on the share price in the event window of -30 to +30 days.

The study is an empirical research that is based on a secondary database.

**Research Methodology**

The data has been extracted from finance.yahoo.com. This website is considered to be an authentic source to collect financial data. The sample consists of 10
companies of the Indian banking sector. Out of the 10 companies, five belong to the public sector and five are from the private sector. The data has been taken for study between October 2011 and August 2012, with the event window of -120 days to +30 days due to the majority of dividend announcements being made between April 2012 and May 2012.

Data was analysed by using the event study methodology to test the efficiency of the Indian stock market with respect to the announcement effect of dividend specifically in the banking sector. The study has covered the dividend declaration by 10 banking sector companies such as ICICI Bank, Syndicate Bank, ING Vysya Bank, IndusInd Bank, J&K Bank, Yes Bank, HDFC Bank, Andhra Bank, PNB and Indian Bank. The following table indicates the dividend announcement dates and the ex-dividend dates by the banks under the study.

<table>
<thead>
<tr>
<th>Name of Bank</th>
<th>Announcement Date</th>
<th>Ex-Dividend Date</th>
<th>Difference in Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICICI Bank</td>
<td>27-04-2012</td>
<td>31-05-2012</td>
<td>34</td>
</tr>
<tr>
<td>Syndicate Bank</td>
<td>05-05-2012</td>
<td>11-07-2012</td>
<td>67</td>
</tr>
<tr>
<td>PNB</td>
<td>09-05-2012</td>
<td>14-06-2012</td>
<td>36</td>
</tr>
<tr>
<td>Indian Bank</td>
<td>11-05-2012</td>
<td>25-06-2012</td>
<td>45</td>
</tr>
<tr>
<td>Yes Bank</td>
<td>25-04-2012</td>
<td>05-07-2012</td>
<td>71</td>
</tr>
<tr>
<td>HDFC Bank</td>
<td>18-04-2012</td>
<td>28-06-2012</td>
<td>71</td>
</tr>
<tr>
<td>Andhra Bank</td>
<td>07-05-2012</td>
<td>27-06-2012</td>
<td>51</td>
</tr>
<tr>
<td>IndusInd Bank</td>
<td>19-04-2012</td>
<td>05-07-2012</td>
<td>47</td>
</tr>
<tr>
<td>ING Vysya Bank</td>
<td>24-04-2012</td>
<td>14-06-2012</td>
<td>51</td>
</tr>
</tbody>
</table>
The closing prices of CNX Nifty have been extracted for the respective dates for each bank. The closing prices of each bank and CNX Nifty have been analysed individually. Regression equation has been used to estimate the expected returns on each day of the event window. Abnormal returns are also calculated. The same process is followed for each bank and, eventually, a table has been constructed with compiled values of the abnormal returns for all the banks in the event window of +30 to -120 days. The results were further analysed to test the semi-strong efficiency of the banking sector as a whole. The following table indicates the impact of dividend announcement in different event windows to analyse the immediate effect, fortnightly effect and monthly effect. In all the cases, the effect is not significantly tested by using t-test at 5% and 10% significance levels.

<table>
<thead>
<tr>
<th>Event Window</th>
<th>CAAR</th>
<th>Avg. CAAR</th>
<th>SD</th>
<th>SE</th>
<th>T-Test</th>
<th>T-Table (5%)</th>
<th>T-Table (10%)</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-1;+1)</td>
<td>0.1909</td>
<td>0.0636</td>
<td>0.3243</td>
<td>0.1872</td>
<td>0.3399</td>
<td>4.3030</td>
<td>2.9200</td>
<td>Not significant</td>
</tr>
<tr>
<td>(-2;+2)</td>
<td>-1.2612</td>
<td>-0.2522</td>
<td>0.4910</td>
<td>0.2196</td>
<td>-1.1487</td>
<td>2.7760</td>
<td>2.1320</td>
<td>Not significant</td>
</tr>
<tr>
<td>(-3;+3)</td>
<td>-2.0099</td>
<td>-0.2871</td>
<td>0.4315</td>
<td>0.1631</td>
<td>-1.7607</td>
<td>2.4470</td>
<td>1.9430</td>
<td>Not significant</td>
</tr>
<tr>
<td>(-5;+5)</td>
<td>-0.8463</td>
<td>-0.0769</td>
<td>0.4858</td>
<td>0.1465</td>
<td>-0.5253</td>
<td>2.2280</td>
<td>1.8120</td>
<td>Not significant</td>
</tr>
<tr>
<td>(-10;+10)</td>
<td>-2.8689</td>
<td>-0.1366</td>
<td>0.4022</td>
<td>0.0878</td>
<td>-1.5566</td>
<td>2.0860</td>
<td>1.7250</td>
<td>Not significant</td>
</tr>
<tr>
<td>(-15;+15)</td>
<td>-3.4601</td>
<td>-0.1116</td>
<td>0.4176</td>
<td>0.0750</td>
<td>-1.4883</td>
<td>2.0420</td>
<td>1.6970</td>
<td>Not significant</td>
</tr>
<tr>
<td>(-20;+20)</td>
<td>-1.7460</td>
<td>-0.0426</td>
<td>0.4553</td>
<td>0.0711</td>
<td>-0.5988</td>
<td>2.0210</td>
<td>1.6840</td>
<td>Not significant</td>
</tr>
<tr>
<td>(-30;+30)</td>
<td>-1.6676</td>
<td>-0.0273</td>
<td>0.4573</td>
<td>0.0586</td>
<td>-0.4669</td>
<td>2.0000</td>
<td>1.6710</td>
<td>Not significant</td>
</tr>
</tbody>
</table>


**Conclusion and Discussion**

Several studies have been done to analyse the impact of the announcement of corporate events, specifically in the developed countries around the world. On the contrary, a smaller number of studies have been carried out in India to analyse the impact of corporate announcements on stock prices. The current study analyses the stock price movements of only banking institutions after different types of corporate announcements made at different points of time. The present study attempts to test the efficiency of the Indian stock market in terms of stock price movements with respect to the dividend announcement effect. The study considers the announcements made in the Indian banking industry between 2011 and 2012.

This study has empirically examined the effect of information dissemination with regard to dividend in the Indian banking sector. The test result indicates that the expectation to earn abnormal returns before and after dividend announcement does not materialise in the case of the sample banks taken under study. The study provides evidence that the Indian stock market shows signs of efficiency in its semi-strong form, with special reference to the banking sector. The analysis depicts that there is no significant impact on the stock prices of banks due to the dividend announcements. Thus, the results support the entire eight null hypotheses, which state that dividend announcement does not have any impact on the stock prices of the banks under study with respect to particular event windows.

**Way Forward**

The study presents the dividend declaration impact on the stock prices of the banking sector in India. Researchers can extend the scope of the study to include other corporate announcements and observe their impact on stock prices of banking sector companies. Furthermore, the event study methodology may be used in other industries and a comparative analysis industry wise may be done. Numerous combinations can be researched by changing the event window as well.

**References**


