



An Impact of Dividend Announcement on Share Price of Pharmaceutical Companies of Generic Drug Manufacturers in India

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ABSTRACT

This study investigates the impact of dividend announcement on share price of pharmaceutical companies in India listed in the Indian Stock Market for period of 5 years (2018 to 2022). Many researches reveal that the dividend announcements convey positive information about the company and hence make a positive impact on the stock prices. This study mainly focuses on the objective of where there is a significant relationship of dividend announcement on share price of Generic Drug Manufacturers. The financial data of five pharmaceutical companies were collected from their financial reports and websites of National Stock Exchange (NSE). The data has been analyzed by employing t-test: paired two sample, correlation coefficient, and linear regression. The result of this test supported that there is a significant relationship of dividend announcement on share price of Generic Drug Manufacturers. The finding of the study revealed that there is a significant relationship of dividend announcement on share price of Generic Drug Manufacturers. The result of the study are expected to develop recommendations for investors, corporate executives, and policymakers based on the findings of the study.

1. INTRODUCTION

The Indian pharmaceutical industry plays a crucial role in global healthcare, boasting both prominent generic and branded drug manufacturers. Dividends are a key mechanism for companies to share profits with shareholders, potentially impacting their stock prices. This study delves into the intricate relationship between dividend announcements and stock price movements in Indian pharmaceutical companies.

Motivation and Purpose:

Investors constantly seek companies offering attractive returns, and dividends play a significant role in investor decisions. Understanding the impact of dividend announcements on stock prices, particularly within specific sub-segments like generics and brands, offers valuable insights for informed investment strategies.

Additionally, the pharmaceutical industry exhibits unique characteristics, such as varying risk profiles and growth trajectories across generic and branded segments. Analyzing how dividend announcements affect each segment separately can reveal important nuances in investor behavior and company signaling strategies.

Top 3 Generic Drug Manufacturers Pharmaceutical Companies in India are based on factors such as Market capitalization, Revenue, Profitability and the companies includes are:

1. Dr. Reddy's Laboratories Limited
2. Divis Lab Laboratories Limited
3. Cipla Limited

Source: Forbes India's Healthcare Awards 2023.

2.1 REVIEW OF LITERATURES AND RESEARCH GAP

A study by Nusrathunnisa and Duraipandian (2017) found that dividend announcements had a positive impact on the share prices of pharmaceutical companies in India. The study also found that the impact of dividend announcements was greater for companies with higher profitability and lower debt levels.

Another study, by Gangil and Nathani (2018), found that dividend announcements had a mixed impact on the share prices of pharmaceutical companies in India. The study found that dividend announcements led to an increase in the share prices of companies with higher growth opportunities and profitability. However, the study also found that dividend announcements led to a decrease in the share prices of companies with lower growth opportunities and profitability.

Another study, conducted by Gitarattan International Business School (2022), found that dividend announcements had a mixed impact on the share prices of pharmaceutical companies in India. The study found that the share prices of some companies increased following dividend announcements, while the share prices of other companies decreased.

RESEARCH GAP

While a number of studies have examined the impact of dividend announcements on pharmaceutical companies but not the generic drug manufacturers in India, there are still some areas where further research is needed. One area of research that is lacking is the impact of dividend announcements on share price of generic drug pharmaceutical companies.

2.2 OBJECTIVE OF THE STUDY:

The objective of the study is to examine the impact of dividend announcements on pharmaceutical companies of generic drug manufacturers in India. The study will focus on the following specific objectives:

- To examine the impact of 10 days before and after announcement of dividend on the average stock prices of generic drug pharmaceutical companies in India.
- To examine the correlation between the average share prices of selected pharmaceutical companies before and after 10 days of dividend announcement of generic drug manufacturer for the period of study.
- To investigate the impact of 10 before and after announcements of dividend on the long-term performance of pharmaceutical companies of generic drug manufacturers in India.
- To develop recommendations for investors, corporate executives, and policymakers based on the findings of the study.

2.3 HYPOTHESIS OF THE STUDY:

Here are some hypotheses for the study on the impact of dividend announcements on pharmaceutical companies in India:

Null Hypothesis (H₀): There is no significant impact of dividend announcements on the average stock prices of generic drug companies 10 days before and 10 days after in India.

Alternative Hypothesis (H₁): Dividend announcements have a significant impact on the average stock prices of generic drug companies 10 days before and 10 days after in India.

Null Hypothesis (H₀): There is no significant correlation between an average share price of pharmaceutical companies before and after 10 days of dividend announcement of generic drug manufacturers in India in long run (5 years).

Alternative Hypothesis (H₁): There is significant correlation between an average share price of pharmaceutical companies before and after 10 days of dividend announcement of generic drug manufacturers in India in long run (5 years).

Null Hypothesis (H₀): There is no significant difference in the long-term performance of generic drug manufacturers pharmaceutical companies in India following 10 days before and after announcement of dividend.

Alternative Hypothesis (H₁): There is no significant difference in the long-term performance of generic drug manufacturers pharmaceutical companies in India following 10 days before and after announcement of dividend.

2.4 PERIOD OF STUDY:

The study will use data from a period of 5 years (2018-2023). This period was chosen because it represents a relatively downfall (as on 2019 the Indian economy faced corona pandemic) and stable period for the Indian economy and the pharmaceutical industry.

2.5 LIMITATION OF THE STUDY:

The study will be limited to the following:

- The study will focus on pharmaceutical companies that are listed on the stock exchanges in India.
- The study will use data from a period of 5 years (2018-2023).
- The study mainly only focuses on generic drug companies.

4. ANALYSIS AND INTERPRETATION

4.1 ANALYSIS

Table 4.1.1

DATE OF DIVIDEND ANNOUNCEMENT

COMPANY NAME	2018	2019	2020	2021	2022
GENERIC DRUG MANUFACTURER					
Dr. Reddy Laboratories Ltd	22-05-2018	17-05-2019	20-05-2020	14-05-2021	19-05-2022
Divi's Laboratories Ltd	28-05-2018	27-05-2019	12-02-2020	31-05-2021	23-05-2022
Cipla Ltd	22-05-2018	22-05-2019	21-02-2020	14-05-2021	27-07-2022

Source: www.moneycontrol.com

1. Dr Reddy Laboratories Limited

4.1.1 The below table show the before and after share price on dividend announcement of Dr. Reddy Laboratories Ltd for the year 2022.

Table 4.1.2

Before announcement	After announcement
3995.40	4115.15
3935.00	4277.13
3919.25	4301.68
3909.78	4343.08
3917.50	4308.62
3876.93	4341.50
3883.60	4368.55
3936.13	4370.20
3915.10	4329.83
3924.05	4329.88

The following results are found for Dr. Reddy pharmaceutical companies by applying t-test:

Table 4.1.3

t-Test: Paired Two Sample for Means

t-Test: Paired Two Sample for Means	Before	After
Mean	3921.27	4308.56
Variance	1054.01	5447.47

Observations	10	10
Pearson Correlation	-0.83	
Hypothesized Mean Difference	0	
Df	9	
t Stat	-11.94	
P(T<=t) one-tail	3.99E-07	
t Critical one-tail	1.83	
P(T<=t) two-tail	7.99E-07	
t Critical two-tail	2.26	

Source: Author's own compilation

INTERPRETATION: In summary, the t-Test results strongly indicate a significant relationship in the impact of dividend announcements. With an extremely low p-value (7.99E-07), significantly below the common significance level of 0.05, you should reject the null hypothesis. This supports the alternative hypothesis that there is indeed a significant impact.

The below table show the overall result of the generic drug manufacturer.

Table 4.1.4

Generic Drug Manufacturers	P(T<=t) two-tailed	Reason
Dr Reddy Laboratories Limited	7.99E-07	The significant value is 0.05, the p(T<=t) two-tailed value for all 5 years is less than 0.05, so reject the null hypothesis, accept the alternative hypothesis.
	0.037	
	0.01	
	1.73E-07	
	0.01	
Divi's Laboratories Limited	1.50E-08	The significant value is 0.05, the p(T<=t) two-tailed value for all 5 years is less than 0.05, so reject the null hypothesis, accept the alternative hypothesis.
	30E-08	
	5.67E-05	
	0.01	
	1.44E-06	
Cipla Limited	3.38E-05	The significant value is 0.05, the p(T<=t) two-tailed value for all 5 years is less than 0.05, so reject the null hypothesis, accept the alternative hypothesis.
	0.04	
	0.01	
	0.01	
	0.01	

Source: Author's own compilation

INTREPRETATION: From the above table, null hypothesis is rejected because P(T<=t) two-tailed value is (<0.05) and accept alternative hypothesis. Therefore, there is a significant impact of dividend announcement on share price of generic drug manufacturer.

4.2 CORRELATION

4.2.1 Analysis using Correlation test for hypothesis

The following table shows the correlation between average share prices of selected pharmaceutical companies before and after 10 days of dividend announcement for the year 2018 to 2022. The following tables are also used to prove the hypothesis.

Null Hypothesis (H₀): There is no significant correlation between an average share price of pharmaceutical companies before and after 10 days of dividend announcement of generic drug manufacturers in India in long run (5 years).

Alternative Hypothesis (H₁): There is significant correlation between an average share price of pharmaceutical companies before and after 10 days of dividend announcement of generic drug manufacturers in India in long run (5 years).

4.2.2 GENERIC DRUG MANUFACTURER

1. Dr Reddy Laboratories Limited

4.2.3 The below table show the correlation between an average share price Dr Reddy Laboratories before and after 10 days of dividend announcement of generic drug manufacturers in India from the year 2018-2022.

Table 4.1.34

Correlations

		Before announcement	After announcement
Before announcement	Pearson Correlation	1	.983
	Sig. (2-tailed)		.000
	N	50	50
After announcement	Pearson Correlation	.983	1
	Sig. (2-tailed)	.000	
	N	50	50

Correlation is significant at the 0.01 level (2-tailed).

Source: Author's own compilation

Correlations				
Generic Manufacturer	Drug	Sig value	Sig value	Decision
		Before announcement	After announcement	
Dr. Reddy Laboratories		0.000	0.000	Reject null hypothesis
Divi's Laboratories Limited		0.000	0.000	Reject null hypothesis
Cipla Limited		0.000	0.000	Reject null hypothesis

Source: Author's own compilation

INTREPRETATION: From the above table, null hypothesis is rejected has the sig value of correlation coefficient is less than 0.05, we accept alternative hypothesis

4.3 LINEAR REGRESSION

4.3.1 Analysis using Correlation test for hypothesis

The following table shows the objective to investigate the impact of 10 before and after announcements of dividend on the long-term performance of pharmaceutical companies of generic drug manufacturers in India.

Null Hypothesis (H0): There is no significant difference in the long-term performance of generic drug manufacturers pharmaceutical companies in India following 10 days before and after announcement of dividend.

Alternative Hypothesis (H1): There is no significant difference in the long-term performance of generic drug manufacturers pharmaceutical companies in India following 10 days before and after announcement of dividend.

Table 4.3.2

Regression

Model Summary ^b									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.989 ^a	0.977	0.977	236.0075	0.977	6367.934	1	148	0.00
a. Predictors: (Constant), AFTER ANNOUNCEMENT									
b. Dependent Variable: BEFORE ANNOUNCEMET									

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.55E+08	1	3.55E+08	6367.934	.000 ^b
	Residual	8243534	148	55699.55		
	Total	3.63E+08	149			
a. Dependent Variable: BEFORE ANNOUNCEMET						
b. Predictors: (Constant), AFTER ANNOUNCEMENT						

Source: Author's own compilation

Interpretation: The results of the linear regression analysis reveal a significant relationship between the independent variable, "after announcement," and the dependent variable, "before announcement," within the framework of a simple linear regression model. The high correlation coefficient ($R = 0.989$) indicates a strong positive correlation between the two variables, implying that variations in "after announcement" are closely associated with corresponding changes in "before announcement." Moreover, the coefficient of determination ($R^2 = 0.977$) indicates that approximately 97.7% of the variability in "before announcement" can be explained by variations in "after announcement," underscoring the substantial explanatory power of the model. The adjusted R^2 value remains consistent at 0.977, accounting for the number of variables in the model. The statistically significant F value (6367.93) and associated p -value (0.00) further validate the significance of the regression model, providing compelling evidence against the null hypothesis and supporting the acceptance of the alternative hypothesis. Thus, the findings suggest a robust positive correlation between "before announcement" and "after announcement", in long run before and after 10 days of generic drug manufacturer implying that the effects of dividend announcement persist over the long term in all three companies.

5.1 FINDING

This study examined the impact of dividend announcements on the stock prices of generic drug pharmaceutical companies in India. We aimed to understand both the immediate and long-term effects, and provide valuable insights for investors, executives, and policymakers.

Based on the objective which is to examine the impact of dividend announcements on the stock prices of generic drug pharmaceutical companies in India. The findings of the study reveal significant variations in the impact of dividend announcements on the stock prices of generic pharmaceutical companies in India. For generic drug companies such as Dr. Reddy's Laboratories Limited, Divi's Laboratories and Cipla Limited, the t -Test results, correlation, and regression strongly indicate a substantial relationship with an extremely low p -value, leading to the rejection of the null hypothesis. This supports the alternative hypothesis, suggesting a noteworthy impact of dividend announcements on the stock prices of these companies.

5.2 CONCLUSION

In conclusion, this research has provided a comprehensive examination of the impact of dividend announcements on the stock prices of generic drug pharmaceutical companies in India. The findings strongly support the notion that dividend declarations have a significant and lasting influence on the stock prices of key players in this sector, including Dr. Reddy's Laboratories Limited, Divi's Laboratories, and Cipla Limited.

The t-Test results, revealing a substantial relationship with an extremely low p-value for these generic drug companies, underscore the rejection of the null hypothesis. This statistical evidence supports the alternative hypothesis, affirming that dividend announcements indeed exert a noteworthy impact on the stock prices of these companies.

This study's implications extend beyond academic curiosity, offering practical insights for investors, executives, and policymakers operating in the pharmaceutical industry. The observed variations in the impact of dividend announcements between generic and branded drug companies emphasize the importance of tailored strategies for different segments of the market. As investors navigate the dynamic landscape of the pharmaceutical sector in India, a nuanced understanding of how financial decisions, particularly dividends, drive market dynamics becomes crucial.

These findings not only contribute to the academic discourse on the interplay between dividends and stock prices but also provide actionable intelligence for stakeholders seeking to optimize their investment decisions in the Indian pharmaceutical landscape. Ultimately, this research aims to empower decision-makers with the knowledge required to navigate the complex financial terrain of pharmaceutical investments in India successfully.

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