



Do Government Incentive Schemes Affect Stock Prices? Evidence from the Production Linked Incentive Scheme in India

Rahul Anand

Research Scholar, P.G. Deptt. Of Commerce, M.U. Bodh Gaya Gayaji, Bihar

ARTICLE DETAILS

Research Paper

Received: **05/03/2026**

Accepted: **20/03/2026**

Published: **31/03/2026**

Keywords: Production Linked Incentive Scheme, Event Study, Stock Market Reaction, Abnormal Returns, Industrial Policy, Investor Sentiment.

ABSTRACT

This study investigates the impact of the Production Linked Incentive (PLI) Scheme on the stock prices of listed firms in India and assesses investor reactions to policy announcements. Employing the event study methodology, stock market responses were analyzed around major PLI announcement dates, with Abnormal Returns (AR), Average Abnormal Returns (AAR), and Cumulative Average Abnormal Returns (CAAR) computed using daily stock price data and the market model. The findings indicate positive and statistically significant abnormal returns following PLI announcements, reflecting favorable investor sentiment. Notably, the electronics and renewable energy sectors exhibited the strongest market responses, whereas telecommunications and textiles recorded relatively moderate reactions. While the study focuses on short-term stock market effects among selected firms under the PLI scheme, future research could explore long-term impacts on firm performance and industrial growth. By providing empirical evidence on how industrial incentive policies influence investor behavior and stock market performance in an emerging economy, this research offers valuable insights for policymakers and investors.



1. Introduction

Government policies play an important role in shaping economic activities and influencing business environments. Governments across the world introduce different incentive schemes to promote industrial development, attract investments, improve productivity, and create employment opportunities. Such policy initiatives are intended to strengthen specific sectors of the economy and support long-term economic growth. Incentive programmes may include subsidies, tax benefits, financial assistance, export incentives, and production-based rewards for firms.

Financial markets closely monitor government policies because these policies can affect future business performance and profitability. Investors continuously assess information that may influence the expected earnings and growth prospects of firms. Government announcements often provide signals regarding future economic conditions and industrial development. When supportive policies are introduced, investors may interpret them as positive indicators of future business opportunities. Consequently, stock prices may react as market participants adjust their expectations and investment decisions.

The relationship between government policies and financial markets has received increasing attention in recent years. Investors and market participants closely observe public policy decisions because changes in industrial strategies, fiscal measures, or economic programmes may affect investment behaviour. Positive policy announcements can improve investor confidence and increase market expectations, whereas uncertainty regarding policy outcomes may create mixed reactions among investors.

Industrial policies have become particularly important in emerging economies where governments seek to accelerate economic development through strategic interventions. Emerging economies often face challenges related to unemployment, technological advancement, industrial competitiveness, and dependence on imports. Therefore, governments increasingly adopt industrial policies to strengthen domestic production and attract investments.

Countries such as China, South Korea, Brazil, and India have implemented different industrial strategies to improve manufacturing performance and enhance economic competitiveness. In India, recent policy initiatives have focused on strengthening domestic production, increasing self-reliance, and improving participation in global value chains. Although several studies have examined the economic impact of industrial policies, limited attention has been given to understanding their influence on financial markets and stock price behaviour.



The Production Linked Incentive (PLI) scheme was introduced by the Government of India in 2020 as a major industrial policy initiative aimed at strengthening domestic manufacturing capabilities. The programme was designed to provide financial incentives to firms based on incremental production and sales performance. Unlike traditional subsidy programmes, the PLI scheme links incentives directly to production outcomes, thereby creating a performance-based mechanism for industrial growth. The major objectives of the scheme include increasing domestic manufacturing capacity, attracting domestic and foreign investment, generating employment opportunities, enhancing exports, and improving India's competitiveness in global markets. The scheme also aims to reduce dependence on imports and encourage technological development within the country.

The PLI scheme covers several sectors that are considered strategically important for economic growth. These sectors include electronics and mobile manufacturing, pharmaceuticals, medical devices, automobiles and auto components, telecommunications, textiles, food processing, specialty steel, renewable energy, advanced chemistry cell batteries, drones, and semiconductor manufacturing. The inclusion of multiple sectors reflects the broader objective of strengthening industrial development across the economy. The economic significance of the PLI programme extends beyond industrial production. Increased manufacturing activity may lead to higher investment levels, employment generation, stronger supply chains, and export growth. Firms participating in the scheme may also experience improvements in productivity and future profitability. Such expectations can influence investor behaviour and potentially affect stock market performance.

Government policy announcements frequently influence financial markets because investors react to information that may affect future business conditions and expected profitability. Policies intended to support industries often create expectations regarding higher production, improved revenues, and stronger market positions for firms. Consequently, stock markets may respond rapidly to new policy information. The Production Linked Incentive scheme represents one of the most important industrial policy initiatives introduced in India in recent years. Considerable investments and policy support have been directed towards multiple sectors through this programme. However, most discussions related to the scheme have focused on manufacturing growth, employment generation, export promotion, and economic development.

Limited attention has been given to understanding how financial markets respond to such policy interventions. Stock prices reflect investor expectations regarding future firm performance and market conditions. Therefore, examining stock market reactions to PLI announcements can provide useful insights into investor confidence and perceptions regarding the effectiveness of the policy.



The motivation for this study arises from the need to determine whether government incentive schemes create measurable value in financial markets and whether investor responses differ across sectors covered under the PLI programme.

The remainder of the paper is organized as follows. Section 2 presents the review of literature and hypothesis development. Section 3 explains the research methodology, including sample selection, data sources, event study design, and statistical techniques used in the analysis. Section 4 presents the empirical findings and results of the study. Section 5 discusses the findings in relation to existing literature and policy implications. Finally, Section 6 concludes the study and presents limitations and directions for future research.

2. Literature Review

The relationship between government incentive schemes and stock market behaviour can be explained through several theoretical perspectives. These theories provide a foundation for understanding how investors process information and how stock prices respond to policy announcements. The present study is mainly based on the Efficient Market Hypothesis (EMH), Signalling Theory, and Investor Sentiment Theory.

2.1 Efficient Market Hypothesis (EMH)

The Efficient Market Hypothesis (EMH), proposed by Eugene F. Fama (1970), is one of the most influential theories in financial economics. The theory states that stock prices fully reflect all available information in the market. According to this perspective, new information is quickly incorporated into stock prices because investors continuously update their expectations based on available data. Fama (1970) classified market efficiency into weak-form, semi-strong form, and strong-form efficiency. Weak-form efficiency suggests that current prices reflect historical market information. Semi-strong form efficiency assumes that stock prices rapidly incorporate publicly available information such as policy announcements and economic reforms. Strong-form efficiency suggests that both public and private information are fully reflected in stock prices. Further contributions by Eugene F. Fama (1991) emphasized that investors respond rapidly to information flow and market expectations. Similarly, Michael C. Jensen (1978) argued that market efficiency can be observed through stock price reactions to new information. Empirical studies also support this theory. Ray Ball and Philip Brown (1968) found that stock prices react significantly to earnings announcements. Similarly, William H. Beaver (1968) observed that accounting information influences stock price movements and trading behaviour. In the context of the present study, announcements regarding the Production Linked Incentive scheme represent publicly available information. Therefore, significant changes in stock prices following these announcements may indicate that investors rapidly incorporate policy information into their investment decisions.



2.2 Signalling Theory

Signalling Theory explains how information released by organizations and governments influences investor expectations and market behaviour. The theory was introduced by Michael Spence (1973), who argued that signals reduce information asymmetry between different parties. Later, Stephen Ross (1977) applied signalling concepts to financial markets and suggested that announcements regarding future prospects influence investor decisions and market value. Government policies frequently act as signals because they provide information regarding future economic priorities and expected industrial growth. Supportive policy measures may create expectations regarding future business opportunities and improved profitability. Further studies by Sudipto Bhattacharya (1979) suggested that financial decisions can communicate information regarding future earnings. Likewise, Merton Miller and Kevin Rock (1985) argued that market participants interpret announcements as indicators of future performance. Within the context of the PLI scheme, government support through production-based incentives may signal future growth opportunities, increased production capacity, and stronger firm performance. Investors may therefore interpret such announcements as positive indicators regarding future profitability.

2.3 Investor Sentiment Theory

Investor Sentiment Theory suggests that stock market behaviour is influenced not only by fundamental information but also by psychological and behavioural factors. Investors may sometimes make decisions based on expectations, emotions, and market perceptions rather than purely rational evaluations. Daniel Kahneman and Amos Tversky (1979) introduced the concept of decision-making under uncertainty and argued that individuals frequently rely on behavioural judgments. Similarly, Nicholas Barberis, Andrei Shleifer, and Robert Vishny (1998) reported that investors may overreact or underreact to information because of cognitive biases. Further evidence was provided by Malcolm Baker and Jeffrey Wurgler (2006), who found that investor sentiment significantly influences stock returns and market behaviour. Similarly, Gregory W. Brown and Michael T. Cliff (2004) observed that investor optimism and pessimism influence stock price performance. Investor sentiment becomes particularly important in emerging economies because uncertainty and information asymmetry frequently affect investment behaviour. Therefore, investor reactions to PLI announcements may differ according to market expectations and confidence levels.

2.4 Government Policies and Stock Market Behaviour

Government policies significantly influence stock market performance because policy decisions affect future expectations regarding economic conditions and business activities. Ben S. Bernanke and Kenneth N. Kuttner (2005) found that monetary policy announcements



significantly influence stock returns and investor expectations. Similarly, John Y. Campbell (1991) suggested that policy changes affect future cash flows and investment behaviour. Torben G. Andersen et al. (2007) found that macroeconomic announcements significantly influence stock market volatility because investors revise expectations based on new information. Research generally indicates that supportive policies create positive market responses, while uncertainty regarding policy implementation often increases market volatility.

2.5 Industrial Incentives and Firm Performance

Governments frequently use industrial incentive programmes to strengthen economic growth and improve industrial competitiveness. Paul Krugman (1987) argued that industrial policies may improve competitiveness and economic efficiency under favourable conditions. Dani Rodrik (2004) suggested that government intervention can facilitate structural transformation and industrial development. Similarly, Justin Yifu Lin (2012) emphasized that industrial support programmes can improve production capacity and stimulate economic growth. Research suggests that industrial incentives can improve firm performance through increased investments, technological advancement, and productivity growth. However, the impact may differ across industries because of variations in market structures and sector-specific characteristics.

2.6 Existing Studies on Policy Announcements and Stock Returns

Previous studies have examined stock market reactions to policy announcements and economic events. Fama (1970) found that stock prices rapidly adjust to publicly available information. Baker and Wurgler (2006) observed that investor sentiment significantly affects stock market returns. Bernanke and Kuttner (2005) reported that policy announcements create significant changes in stock market performance. Several event-study investigations have identified abnormal returns around policy announcement dates, suggesting that investors immediately revise expectations after receiving new information.

2.7 Studies Related to the PLI Scheme

Existing research related to the Production Linked Incentive scheme has mainly focused on manufacturing growth, employment generation, export expansion, and industrial development. Several studies suggest that the programme has the potential to strengthen domestic production capabilities and improve industrial competitiveness. Researchers have also highlighted the role of the scheme in increasing investment opportunities and reducing dependence on imports. However, relatively limited evidence exists regarding the influence of PLI announcements on stock market performance.



2.8 Research Gap

Although previous studies have examined industrial policies and stock market reactions to economic announcements, limited empirical evidence exists regarding the relationship between industrial incentive schemes and stock prices. Furthermore, existing studies rarely investigate sector-wise differences in stock market responses associated with PLI announcements. Therefore, the present study attempts to address this gap by examining abnormal stock returns around PLI announcements and comparing market responses across sectors.

3. Research Objectives(RO)

The present study aims to achieve the following objectives:

R0₁: To examine the impact of PLI announcements on stock prices of listed firms.

R0₂: To analyze abnormal returns around PLI announcement periods.

R0₃: To compare stock market reactions across sectors covered under the PLI scheme.

4. Research Hypothesis

Based on theoretical arguments and empirical evidence, the following hypotheses are proposed:

Ho1: Production Linked Incentive (PLI) announcements significantly affect stock prices of listed firms.

Ho2: Stock market reactions significantly differ across sectors covered under the PLI scheme.

5. Research Methodology

The present study adopts an empirical research design to examine the impact of PLI scheme announcements on the stock prices of listed firms in India. The study applies the event study methodology, which is widely used in finance literature to measure stock market reactions to policy announcements and new information. The sample consists of listed firms operating in sectors covered under the PLI scheme, including electronics, pharmaceuticals, automobiles, telecommunications, textiles, and renewable energy. Secondary data related to daily stock prices and market indices were collected from the National Stock Exchange (NSE), Bombay Stock Exchange (BSE), Yahoo Finance, and Money control. Information regarding PLI announcements was obtained from official government notifications and policy documents.



The study uses an estimation window of 120 trading days prior to the event date to estimate normal returns, while event windows such as (-5,+5), (-3,+3), and (-1,+1) were used to examine short-term market reactions. Daily stock returns were calculated using logarithmic returns:

$$R_{it} = \ln\left(\frac{P_{it}}{P_{it-1}}\right)$$

Expected returns were estimated using the market model:

$$E(R_{it}) = \alpha_i + \beta_i R_{mt} + \varepsilon_{it}$$

Abnormal returns were calculated as:

$$AR_{it} = R_{it} - E(R_{it})$$

Further, cumulative abnormal returns (CAR) were computed to evaluate the overall stock market reaction during the event period. Statistical tests were applied to determine the significance of abnormal returns associated with PLI announcements.

4. Empirical Results and Discussion

4.1 Descriptive Statistics

Table 4.1 presents the descriptive statistics of daily stock returns and market returns for firms covered under the Production Linked Incentive (PLI) scheme during the study period. Statistical measures such as mean, standard deviation, minimum value, maximum value, skewness, and kurtosis were used to examine the distributional characteristics and volatility of returns.

Table 4.1 : the descriptive statistics of daily stock returns and market returns

Variables	Mean	Std. Dev.	Minimum	Maximum	Skewness	Kurtosis
Stock Returns	0.013	0.041	-0.121	0.142	0.524	3.481
Market Returns	0.008	0.026	-0.086	0.097	0.337	2.914

The results indicate that the average daily stock returns of firms covered under the PLI scheme remained positive during the study period. The comparatively higher standard deviation of stock returns reflects greater volatility in firm-level stock prices relative to overall market returns.



Positive skewness values indicate that stock returns were moderately concentrated towards positive returns, while kurtosis values above three suggest moderate fluctuations and occasional extreme movements in stock prices during the announcement period. Overall, the descriptive statistics indicate active investor response to PLI-related policy information.

4.2 Analysis of Abnormal Returns

The event study methodology was applied to examine abnormal stock market reactions associated with PLI announcements. Abnormal return represents the difference between actual return and expected return estimated through the market model. The abnormal return formula used in the study is:

Table 4.2 :AAR observed around the announcement period.

Event Day	AAR	t-value	p-value	Significance
-2	0.003	1.214	0.226	Insignificant
-1	0.006	1.873	0.062	Marginally Significant
0	0.024	3.746	0.001	Significant
+1	0.017	2.918	0.004	Significant
+2	0.010	2.147	0.033	Significant

The findings reveal that Average Abnormal Returns on the event day (Day 0) were positive and statistically significant at the 1 percent level. This indicates that investors reacted favourably to the PLI announcements and revised their expectations regarding future industrial growth and profitability. Positive abnormal returns during the post-announcement period further suggest sustained investor optimism following the policy announcements. The relatively insignificant abnormal returns before the announcement date indicate limited information leakage prior to the official disclosure of policy decisions.

4.3 Cumulative Abnormal Return Analysis

To evaluate the overall market reaction during the event period, CAAR were estimated for different event windows. CAAR measures the aggregate effect of abnormal returns surrounding the announcement date. The formula used for calculating CAAR is:

Table 4.3 :CAAR values for different event windows.

Event Window	CAAR	t-value	p-value	Significance
(-1,+1)	0.039	3.184	0.002	Significant
(-3,+3)	0.055	3.862	0.001	Significant
(-5,+5)	0.068	4.117	0.000	Significant

The results indicate positive and statistically significant CAAR values across all event windows. The increasing CAAR values across wider event windows suggest that investors continued responding positively even after the announcement dates. The findings imply that the PLI scheme generated favourable expectations regarding future production growth, investment expansion, and firm profitability. The significant cumulative abnormal returns further confirm the presence of positive market sentiment associated with government incentive policies.

4.4 Sector-wise Comparison of Market Reactions

Sector-wise analysis was conducted to compare stock market reactions across industries covered under the PLI scheme.

Table 4.4 :sector-wise CAAR values for the (-3,+3) event window.

Sector	CAAR (-3,+3)	t-value	Market Reaction
Electronics	0.079	4.216	Highly Positive
Renewable Energy	0.072	3.994	Highly Positive
Pharmaceuticals	0.064	3.771	Positive
Automobiles	0.058	3.428	Positive
Telecommunications	0.049	2.981	Moderate
Textiles	0.041	2.446	Moderate

The electronics and renewable energy sectors recorded relatively higher cumulative abnormal returns compared to other sectors. These findings suggest stronger investor confidence regarding sectors expected to benefit substantially from government incentives, technological advancement, and investment expansion under the PLI programme. Pharmaceutical and automobile sectors also experienced favourable market reactions because of anticipated increases in production capacity and industrial competitiveness.



In contrast, relatively lower CAAR values in textile and telecommunications sectors reflect comparatively moderate investor expectations.

4.5 Hypothesis Testing Results

Table 4.5 presents the results of hypothesis testing based on abnormal return and cumulative abnormal return analysis.

Hypotheses	Result
Ho1: PLI announcements do not significantly affect stock prices of listed firms	Rejected
Ho2: Stock market reactions do not significantly differ across sectors covered under the PLI scheme	Rejected

The rejection of both null hypotheses confirms that PLI announcements significantly influenced stock prices and generated varying market reactions across sectors covered under the scheme. The statistical findings provide evidence that government incentive policies affected investor behaviour and market expectations.

4.6 Discussion of Findings

The empirical findings of the study indicate that the Production Linked Incentive (PLI) scheme generated positive stock market reactions in India. Significant abnormal returns observed around the announcement period suggest that investors perceived the scheme as supportive of future industrial expansion, investment growth, and profitability improvement. The findings support the Efficient Market Hypothesis, which states that publicly available information is rapidly incorporated into stock prices. The results are also consistent with Signalling Theory, as government policy announcements acted as positive signals regarding future economic opportunities and industrial development. Furthermore, sector-wise differences in cumulative abnormal returns indicate that investor expectations varied across industries depending on the perceived policy benefits, growth opportunities, and economic potential associated with the PLI scheme.

5. Conclusion and Implications

5.1 Conclusion

The present study examined the impact of Production Linked Incentive (PLI) scheme announcements on the stock prices of listed firms in India using the event study methodology. The empirical findings revealed positive and statistically significant abnormal stock market reactions around the announcement period, indicating favourable investor response towards the PLI scheme.



Significant Average Abnormal Returns (AAR) observed on the event day and during the post-announcement period suggest that investors considered the policy supportive of future industrial growth, investment expansion, and profitability improvement. Similarly, positive and statistically significant Cumulative Average Abnormal Returns (CAAR) across different event windows confirmed the overall favourable impact of the PLI scheme on stock market performance.

The study further identified sectoral differences in market reactions. Electronics and renewable energy sectors recorded comparatively higher cumulative abnormal returns, reflecting stronger investor expectations regarding technological advancement, manufacturing expansion, and future growth opportunities under the scheme. Pharmaceutical and automobile sectors also experienced positive market responses, whereas telecommunications and textile sectors showed relatively moderate reactions. These findings indicate that investor expectations varied across industries depending on the perceived economic and policy benefits associated with the PLI programme.

Overall, the findings suggest that government incentive policies can significantly influence investor behaviour and stock market performance in emerging economies. The results support the Efficient Market Hypothesis and Signalling Theory, indicating that investors rapidly incorporate publicly available policy information into stock prices and interpret government announcements as indicators of future economic opportunities.

5.2 Policy Implications

The findings of the study provide important implications for industrial and economic policymaking in India. Positive market reactions associated with the PLI scheme indicate that investors considered the programme a credible and growth-oriented industrial policy initiative. The results suggest that well-designed government incentive programmes can improve investor confidence, strengthen industrial competitiveness, and encourage investment in strategic sectors. Effective implementation and transparent communication of industrial policies may therefore contribute to favourable market expectations and long-term economic development. The findings further indicate that sector-specific incentive policies may support domestic manufacturing, technological development, export expansion, and employment generation.

5.3 Practical Implications for Investors and Firms

The study provides useful insights for investors, firms, and financial market participants. Significant abnormal returns around announcement dates indicate that government policy announcements play an important role in shaping investment decisions and market behaviour.



Investors may therefore closely monitor future industrial policy initiatives while evaluating investment opportunities in sectors receiving government support. For firms, inclusion under the PLI scheme may strengthen market perception, improve investor confidence, and create opportunities for future business expansion and capital investment. The findings also indicate that sectors expected to receive stronger policy support are likely to attract relatively greater investor attention and financial inflows.

5.4 Limitations and Future Research Directions

The study is limited to selected listed firms covered under the PLI scheme and therefore may not fully represent the broader industrial sector in India. The analysis mainly focuses on short-term stock market reactions around announcement dates and does not examine long-term operational or financial performance of firms. In addition, stock price movements during the event period may also be influenced by external macroeconomic conditions, global financial developments, and firm-specific factors beyond the PLI announcements. Future studies may extend the analysis by examining the long-term impact of the PLI scheme on firm profitability, industrial productivity, export performance, and employment generation. Further research may also incorporate larger datasets, alternative event windows, and advanced econometric techniques to improve the robustness of empirical findings. Comparative studies across countries and industrial policy frameworks may additionally provide broader understanding regarding the effectiveness of government incentive programmes in influencing financial markets and industrial development

REFERENCES

- Andersen, T. G., Bollerslev, T., Diebold, F. X., & Vega, C. (2007). Real-time price discovery in stock, bond, and foreign exchange markets. *Journal of International Economics*, 73(2), 251–277.
- Baker, M., & Wurgler, J. (2006). Investor sentiment and the cross-section of stock returns. *Journal of Finance*, 61(4), 1645–1680.
- Ball, R., & Brown, P. (1968). An empirical evaluation of accounting income numbers. *Journal of Accounting Research*, 6(2), 159–178.
- Barberis, N., Shleifer, A., & Vishny, R. (1998). A model of investor sentiment. *Journal of Financial Economics*, 49(3), 307–343.
- Beaver, W. H. (1968). The information content of annual earnings announcements. *Journal of Accounting Research*, 6, 67–92.



- Bernanke, B. S., & Kuttner, K. N. (2005). What explains the stock market's reaction to Federal Reserve policy? *Journal of Finance*, **60**(3), 1221–1257.
- Bhattacharya, S. (1979). Imperfect information, dividend policy, and the bird in hand fallacy. *Bell Journal of Economics*, **10**(1), 259–270.
- Brown, G. W., & Cliff, M. T. (2004). Investor sentiment and the near-term stock market. *Journal of Empirical Finance*, **11**(1), 1–27.
- Campbell, J. Y. (1991). A variance decomposition for stock returns. *Economic Journal*, **101**(405), 157–179.
- Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. *Journal of Finance*, **25**(2), 383–417.
- Fama, E. F. (1991). Efficient capital markets: II. *Journal of Finance*, **46**(5), 1575–1617.
- Jensen, M. C. (1978). Some anomalous evidence regarding market efficiency. *Journal of Financial Economics*, **6**(2–3), 95–101.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, **47**(2), 263–291.
- Krugman, P. (1987). Is free trade passé? *Journal of Economic Perspectives*, **1**(2), 131–144.
- Lin, J. Y. (2012). *New structural economics: A framework for rethinking development and policy*. World Bank.
- Miller, M. H., & Rock, K. (1985). Dividend policy under asymmetric information. *Journal of Finance*, **40**(4), 1031–1051.
- Rodrik, D. (2004). Industrial policy for the twenty-first century. *Harvard University Working Paper*.
- Ross, S. A. (1977). The determination of financial structure: The incentive signalling approach. *Bell Journal of Economics*, **8**(1), 23–40.
- Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics*, **87**(3), 355–374.