

# The Impact of Creative Innovation Publication on Abnormal Stock Returns on the IDX: Event Study on Financial and Technology Issuers

Muhammad Zulfa<sup>1\*</sup>, Mahirun<sup>2</sup>, and Wenti Ayu Sunarjo<sup>3</sup>

<sup>1</sup> Universitas Pekalongan

<sup>2</sup> Universitas Pekalongan

<sup>3</sup> Universitas Pekalongan

\*Corresponding Author – Email Address : zulfalichin@gmail.com

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## ABSTRACT

This study examines whether the publication of innovations by issuers on the Indonesia Stock Exchange (IDX) has a collective impact on abnormal stock returns. There are still few studies that measure market responses to creative innovation strategies of public companies in Indonesia. This article collects data from eight innovation events carried out by all sectors and disseminates them collectively using an event study framework, an approach that is still rarely applied in the Indonesian context. The approach used is quantitative with the event study method. Abnormal return data is calculated based on the difference between stock returns and IHSG returns in the time range  $t-5$  to  $t+5$ . All abnormal returns are averaged into AAR and accumulated into CAR. A one-sample t-test is used to test statistical significance. The highest Average Abnormal Return (AAR) value occurs on day 0 at 1.781%, and the Cumulative Abnormal Return (CAR) value reaches 6.740% up to day 5 after publication. The test results show a t value = 4.687 with a p-value = 0.00086 ( $p < 0.05$ ) which indicates that the market reacts significantly to innovation publications. The results of this study indicate that creative publication innovation collectively has a significant impact on the stock market, indicated by a positive AAR value and significant statistical test results. This study emphasizes the importance of strategic innovation as a market signal in the context of the IDX.

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## ARTICLE INFO

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## 1. Introduction

Innovation is an important strategy used by companies to create competitive advantages and maintain long-term business sustainability. According to (Yani et al., 2023) understanding the impact of financial technology and innovation on financial performance enables the design of more effective strategies to optimize results in a digital business environment. In the context of capital markets, the publication of innovation is often seen as a signal that reflects a company's readiness to face industry dynamics and respond to market needs. Innovation that is communicated publicly to investors is expected to increase positive perceptions and attract investment interest.

Previous research has shown that investors respond positively to announcements of realization (both new products and technological innovations) compared to announcements of plans (Juniarti et al., 2023). The realization of the application of creativity and innovation provides investors with hope for better company performance, thereby increasing their value. Adoption of technology and innovation in products can improve financial performance. These findings provide a basis for companies to focus on innovation and technology adoption. Practical implications include expanding innovation initiatives and investing in human resources (Gifari Sono et al., 2024). Process innovation and product innovation are innovations that are considered the most appropriate and have the strongest relationship to performance (Witjaksono & Amir, 2022)

However, the impact of innovation is not always uniform. IT investment announcements do not have information content and therefore do not affect market reactions (Muharam Harjum & Widati Riris Retno, 2006). There is no significant difference in abnormal returns before and after the collaboration between peer-to-peer lending and banks listed on the Indonesia Stock Exchange (Nugraha, 2022). Product Innovation does not have a positive influence between product innovation and sales performance (Yandri, 2024).

The existing literature is mostly limited to studies of single events or specific sectors. In fact, in the current information era, innovation is carried out massively by various companies across sectors. However, there has not been much research that collectively examines how innovation publications impact the market at large. Therefore, it is important to conduct a collective study that combines several innovation events from various companies to find out whether innovation is generally appreciated by the capital market. Meanwhile, one study in the existing literature has used a cross-sectoral sample (Muharam Harjum & Widati Riris Retno, 2006), However, the object of the research is information related to investment in technology published in the mass media which cannot be directly interpreted as innovation and creativity.

This study aims to fill this gap by analyzing eight publication events related to the realization of creativity and innovation that have a direct impact on improving partners and consumers widely carried out by issuers on the Indonesia Stock Exchange (IDX) from various sectors. By using an event study approach and observing the abnormal movement of stock returns around the time of innovation publication, this study seeks to answer whether the Indonesian market responds to companies' creative innovations positively and significantly. The results of this study are expected to provide empirical contributions to signal theory and become strategic input for the management of public companies in Indonesia.

## **2. Literature Review**

### **Creative Innovation Publication**

Innovation and creativity have long been recognized as strategic factors in improving a company's competitiveness and financial performance. Several studies have concluded that innovation, both in the form of products and technology adoption, contributes significantly to increased revenue, operational efficiency, and company value. (Gifari Sono et al., 2024) found that product innovation supported by technology adoption can increase profitability, liquidity, and operational activities of companies in Indonesia. This finding is in line with (Pourkarimi & Kam, 2022) which shows that R&D spending significantly increases the market share and revenues of firms in the high-tech sector in the United States

## Abnormal Return

However, although the relationship between innovation and financial performance has been widely discussed, there is an important gap in literature that has not been widely explored, namely how capital markets collectively respond to the publication of innovation by companies. Most previous studies place innovation as an internal factor that affects financial performance, but not many use an event study approach to observe whether the publication of innovation has a direct effect on stock prices through abnormal returns. The few studies that have tried to answer this question have shown inconsistent results. (Raniana, 2022) did not find a significant difference in abnormal returns before and after the announcement of fintech cooperation by banks. This is in accordance with (Muharam Harjum & Widati Riris Retno, 2006) that the IT investment announcement has no information content and therefore has no effect on market reaction. On the contrary, (Juniarti et al., 2023) found that the market reacts significantly to innovation announcements that have entered the realization stage, not just the development stage. These results indicate that investor perceptions of the quality and maturity of innovation greatly determine market reactions.

## Signaling theory

In the framework of signaling theory, innovation publication can be seen as a positive signal of the company's future prospects. In the context of a semi-strong form efficient market as explained by Fama (1970) in (Ary et al., 2002), Public information such as innovation announcements should be immediately reflected in stock prices "stock prices reflect all available information". However, conflicting empirical evidence suggests that investor responses in Indonesia to innovation signals are not necessarily uniform or significant. This gap is an important basis for this study: although innovation has the potential to signal future company value, it is uncertain whether innovation publications collectively trigger abnormal returns in the Indonesian capital market. Thus, the event study approach is used to empirically test whether innovation publications by issuers on the IDX generate significant market responses.

## Research hypothesis

From the explanation above, the hypothesis in this study is:

- **H<sub>0</sub> (Null Hypothesis):** Publication of innovations by issuers on the Indonesia Stock Exchange does not cause significant abnormal returns collectively within the event window period.
- **H<sub>1</sub> (Alternative Hypothesis):** Publication of innovations by issuers on the Indonesia Stock Exchange causes significant abnormal returns collectively in the event window period.

## 3. Method, Data, and Analysis

This study uses a quantitative approach with the event study method, which aims to measure the impact of information - in this case the publication of innovation - on the movement of issuers' stock prices on the Indonesia Stock Exchange. Event study is an appropriate method because it can capture short-term market responses to information that is public and strategic.

The data used in this study are secondary data consisting of:

1. Daily stock prices of each issuer, that is the research sample.
2. Daily Composite Stock Price Index (IHSG) as a market benchmark.
3. Date of innovation publication, collected from trusted business news media, official company press releases, and public annual reports.

The sample consists of 8 events at 3 issuers that published innovations during the 2024–2025 period. These issuers come from the technology and financial sectors and were selected purposively based on clear and verifiable information disclosure.

### Operational Definition of Variables

1. Abnormal Return (AR): The difference between the actual stock return and the market return (IHSG) on the same day.
2. Average Abnormal Return (AAR): The average AR of all issuers for each day in the event window.
3. Cumulative Abnormal Return (CAR): Cumulative number of AARs in the event window.

Daily return calculations are done using the formula:

$$R_{it} = \frac{P_{it} - P_{it-1}}{P_{it-1}}$$

Where  $R_{it}$  is the company's stock return  $i$  on the day  $t$ ,  $P_{it}$  is the closing price of the stock on the day  $t$ , and  $P_{it-1}$  is the closing price of the previous day.

Abnormal Return is calculated by:

$$AR_{it} = R_{it} - R_{mt}$$

Where  $R_{mt}$  is the IHSG return on the day- $t$ .

AAR is calculated as:

$$AAR_t = \frac{1}{N} \sum_{i=1}^N AR_{it}$$

CAR is calculated as:

$$CAR = \sum_{t=-5}^{+5} AAR_t$$

The event window used is 11 days, starting from  $t-5$  to  $t+5$  around the innovation publication date ( $t_0$ ). This range is chosen to capture market reactions before and after the information is published. Meanwhile, testing is carried out on AAR using a one-sample t-test to see whether the AAR value is significantly different from zero. This test is used because the main objective of the study is to determine whether there is a market reaction to the publication of innovation.

Statistical Hypothesis:

H0: AAR = 0 (no significant market reaction)

H1: AAR  $\neq$  0 (there was a significant market reaction)

If the AAR data does not meet the normality assumption, then as an alternative the Wilcoxon signed-rank test is used as a non-parametric test.

Data processing is done with the help of Microsoft Excel to calculate returns, AR, AAR, and CAR, and Python/Excel/SPSS for statistical tests. The calculation results will be presented in the form of tables and graphs to facilitate interpretation and visualization of market reactions to innovation publications. With this method, it is hoped that the study can provide a more comprehensive

understanding of whether creative innovation publications have a real impact on the stock market in Indonesia collectively.

#### 4. Results and Discussion

This study analyzes eight innovation events from three different issuers, namely Bank Mandiri (BMRI), Adira Finance (ADMF), and GoTo Gojek Tokopedia (GOTO) during the period 2024–2025. The details of the events analyzed are as follows:

**Table 1.** Creative Innovation Event List

Issuer	Event date	Innovation	Source
Bank Mandiri	29 Juni 2024	Campaign #BeyondSuperAPP: feature launch KPR, loyalty, dll.	Bisnis.com (29 Jun 2024) (gizmologi.com, gopay.co.id)
Bank Mandiri	8 Oktober 2024	Redesign UI/UX Livin' + integrasi fitur investasi saham, QRIS, KPR. (2) Integrasi Growin' stock trading platform into Livin'	Bisnis.com (8 Okt 2024)
Bank Mandiri	24 Maret 2025	feature launch Livin' Investasi (Saham, RD, Obligasi)	Bisnis.com (24 Mar 2025)
Adira Finance	18 Februari 2024	Launch digital platform momobil.id & momotor.id	AntaraNews (1 Jan 2024)
Adira Finance	17 Nov 2024	Launch SolusiDana & Pembiayaan kendaraan listrik (EV) di IIMS 2025	MediaAsuransiNews (24 Feb 2025)
Gojek Tokopedia	16 Juli 2024	Lounch Dira, AI-fintech voice assistant In Indonesia on GoPay	Tech in Asia & DealStreetAsia (16 Jul 2024) (reuters.com, dealstreetasia.com, techinasia.com)
Gojek Tokopedia	4 Oktober 2024	Fitur Split Bill berbasis AI-OCR di GoPay	Heaptalk & GoPay Blog (4 Okt 2024)
Gojek Tokopedia	14-Nov-24	Lounch Sahabat-AI, LLM lokal bahasa Indonesia	Reuters (14 Nov 2024)

From the results of processing stock price data and the IHSG index during the event window  $t-5$  to  $t+5$ , the highest Average Abnormal Return (AAR) value was obtained on day 0 ( $t_0$ ) of 1.781%. The AAR value during the observation period shows a consistent positive trend, although there are small fluctuations. While cumulatively, the Cumulative Abnormal Return (CAR) value reaches 6.740% until  $t+5$ . This indicates that investors gain significant abnormal profits during the observation period, indicating that the publication of innovation creates positive value in the eyes of investors. The stable increase in CAR shows that the market reaction to innovation is not momentary, but sustainable.

To find out whether AAR is collectively significantly different from zero, a one-sample t-test was conducted. The t-test results showed a value of  $t = 4.687$  with a p-value = 0.00086. Since the p-value  $< 0.05$ , it can be concluded that AAR is statistically significantly different from zero. Thus, the null hypothesis ( $H_0$ ) is rejected, and the alternative hypothesis ( $H_1$ ) is accepted, which means that there is a significant market reaction to the publication of innovation. These results support the signaling

theory, which states that new information with positive value will be accepted by the market as a signal of good future performance. Innovation published by the company is seen as a form of seriousness in increasing the company's value and competitiveness, thus attracting buying interest from investors and increasing stock prices abnormally.

This finding is in line with research (Juniarti et al., 2023), which shows that innovation announcements have a positive impact on stock returns. However, it is important to note that not all innovative events have the same impact. In a more in-depth analysis of each event, there are variations in the strength of the impact depending on the type of innovation, the timing of the announcement, and the issuer's reputation. For example, technology and AI-based innovations tend to get a bigger reaction than administrative or service policy innovations. In addition, the increasing trend of CAR that continues until the fifth day after the announcement (t+5) indicates that information about innovation is not immediately fully reflected in stock prices on the day of publication. This shows that the Indonesian capital market is still in the semi-efficient category, where information takes time to be fully responded to by investors.

Overall, the results of this study indicate that the publication of creative innovations by BEI issuers has a significant and positive impact on the stock market collectively. Innovation has proven to be an effective value communication instrument and can be used by companies as a strategy to attract investors, increase market capitalization, and strengthen their position in the capital market.

## 5. Conclusion and Suggestion

This study empirically shows that the publication of innovations by issuers on the Indonesia Stock Exchange has a significant and positive impact on collective abnormal stock returns. Based on the calculation of the Average Abnormal Return (AAR) during the event window period (t-5 to t+5), a p-value of 0.00086 was obtained from the one-sample t-test, indicating that the AAR value is significantly different from zero. In addition, the Cumulative Abnormal Return (CAR) value reached 6.740% at t+5, reflecting that the impact of innovation publication is not only instantaneous but also continues for several days after the information is released to the public.

This finding strengthens the signaling theory which states that strategic information published by companies, such as product, service, or technology innovations, can be an indicator of market confidence in the company's prospects. Positive investor reactions are reflected in the spike in abnormal stock returns in a relatively short period of time after publication. Theoretically, this also supports the concept of semi-strong forms of market efficiency, where stock prices immediately adjust to relevant public information. The managerial implications of these findings are significant. Innovation not only impacts on the internal aspects of the firm such as operational efficiency or product differentiation but also serves as a means of communicating value to the capital market. Thus, public company management should utilize innovation publication as part of a structured and integrated investor relations strategy. Delivering innovation through credible official channels can build reputation, attract institutional investors, and strengthen retail investor loyalty. Furthermore, capital market regulators and financial authorities can utilize these findings to encourage transparency and better innovation reporting by issuers. An information disclosure system is needed that allows investors to gain fast and accurate access to company innovations that have a significant impact.

For future research development, it is recommended that similar research be conducted with wider data coverage both in terms of the number of events and a longer time. The analysis can also be expanded by comparing innovative sectors (such as digital technology and finance) with traditional

sectors, including mediating variables such as company size, management reputation, or the level of media exposure to innovation. In addition, qualitative approaches such as in-depth case studies can be used to understand how innovative communication strategies are developed within companies.

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