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Unusual Market Activity Impact on Abnormal Liquidity Risk, Abnormal Volatility, and Abnormal Return in Indonesia Capital Market

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ABSTRACT

This study investigates the impact of Unusual Market Activity (UMA) announcements on abnormal liquidity risk, abnormal volatility, and abnormal return in the Indonesia Capital Market. UMA indicates unusual trading patterns that may signal market manipulation, and while UMA announcements act as market signals influencing investor behavior, previous research has shown mixed findings on their impact. Drawing on market microstructure theory and signaling theory, this study aims to empirically examine how these announcements affect market dynamics to provide a comprehensive understanding of the market implications of potential price manipulation. This quantitative descriptive study uses secondary data from 58 stocks affected by UMA announcements between June and August 2024, observed over 100 trading days (50 days before and 50 days after the announcement). The variables analyzed include abnormal return, abnormal volatility, and abnormal liquidity risk, with the USD/IDR exchange rate as a control variable. Multiple linear regression is employed to analyze the effect of UMA announcements on these three variables. The results indicate that UMA announcements significantly increase abnormal volatility and significantly decrease abnormal liquidity risk. This suggests that UMA triggers speculative reactions and boosts short-term trading volume, making affected stocks more liquid. However, UMA announcements do not significantly affect abnormal return, implying that investor expectations of fundamental value remain unchanged despite increased trading activity. These findings offer insights for regulators to enhance UMA effectiveness, guide investors in formulating trading strategies, and underscore the importance of public education on UMA's implications.

INTRODUCTION

The implementation of *Unusual Market Activity* (UMA) in the Indonesian capital market has become a crucial focus in the context of market surveillance. UMA indicates unusual trading patterns or price movements that may serve as early signals of market manipulation. Some stakeholders have criticized UMA announcements by the Exchange as lacking positive impact on stock performance and transparency in criteria. A study by Comerton-Forde and Putniņš (2014) shows that price manipulation activities often target illiquid stocks with low oversight, resulting in price distortion and affecting volatility and liquidity. Therefore, UMA announcements by the Indonesia Stock Exchange (IDX) are

not merely warnings but also act as market signals influencing investor expectations and behavior. Within the framework of market microstructure theory (O'Hara, 2015), public information such as UMA announcements affects the price formation process, particularly by increasing information asymmetry. This aligns with signaling theory, which suggests that negative signals tend to amplify perceived risk among investors (Spence, 2002; Easley & O'Hara, 2010). This study aims to empirically examine the impact of UMA announcements on abnormal liquidity risk, abnormal volatility, and abnormal return, in order to provide a more comprehensive understanding of the market implications of potential price manipulation in the context of Indonesia's emerging capital market.

Market manipulation practices cause stock prices to deviate from their fundamental values and increase the risk of loss, especially for retail investors who have limited access to information. O'Hara (2015) explains that information asymmetry arising from manipulation can lead to market dysfunction, which is reflected in increased volatility and reduced liquidity. Aware of these risks, the Indonesia Stock Exchange issues UMA announcements as a form of warning against unusual trading activity. UMA serves as a regulatory signal aimed at curbing further manipulation before it escalates. In the context of market microstructure theory, information such as UMA announcements can directly influence price formation, risk perception, and market liquidity.

UMA may influence investor behavior and market conditions through changes in abnormal return, liquidity risk, and stock volatility, although previous studies show mixed findings. *Untari* and *Yasa* (2020) found no significant abnormal return following UMA announcements, suggesting that the market may have anticipated or quickly adjusted to the information. However, *Dewi* and *Yasa* (2023) reported significant abnormal return changes post-UMA. *Nurazizah* and *Prastiwi* (2023) observed short-term volatility spikes and price reversals in UMA-affected stocks, indicating investor overreaction to regulatory signals. *Lontokan* and *Mokoagow* (2023) similarly found that stock price volatility increased after UMA announcements, with significant price fluctuations at confidence levels of 90%, 95%, and 99%.

Empirical studies also show the impact of UMA on three main indicators: abnormal return, abnormal volatility, and abnormal liquidity risk. *Surachman* and *Ghozali* (2021) confirmed a significant decline in return after UMA announcements, consistent with the negative signal theory prompting price corrections. *Setyawan* and *Lestari* (2022) found that UMA-affected stocks experienced volatility spikes within three days of the announcement, accompanied by widening bid-ask spreads indicating reduced liquidity. *Nursakti* and *Haryanto* (2020) similarly noted significant increases in abnormal return and volatility for UMA stocks compared to non-UMA stocks. These variables are interrelated: abnormal return represents price performance deviations, abnormal volatility indicates heightened market uncertainty, and abnormal liquidity risk reflects increased transaction risk. Overall, this literature suggests that UMA announcements can influence investor behavior and market conditions, although inconsistencies across studies indicate the need for further examination.

RESEARCH METHODS

This study uses secondary data from 58 stocks affected by UMA announcements between June and August 2024. The observation period covers 100 trading days, including 50 days before and 50 days after the UMA announcement. The variables analyzed include abnormal return, abnormal volatility, and abnormal liquidity risk, with the USD/IDR exchange rate as a control variable. Stock price data is used to calculate abnormal return and volatility, while trading volume data is used to measure liquidity risk. The exchange rate is considered a control variable because it can influence market sentiment and stock price movements, particularly for companies exposed to foreign currency.

Following Hewamana (2024), abnormal return is calculated using daily closing prices.

$$AR = \left(\frac{CP_{u(t)}}{CP_{u(t-1)}}\right) - \left(\frac{CP_{n(t)}}{CP_{n(t-1)}}\right)$$

Where:
AR = Abnormal Return
CPu(t)/CPu(t-1) = UMA Stock return
CPn(t)/CPn(t-1) = Market Return
CP = Closing Price
t = Date

Abnormal volatility is calculated using the Parkinson (1980) method, utilizing daily high and low prices.

$$AV = \left(\frac{(lnH_{u(t)} - lnL_{u(t)})^2}{4ln2}\right) - \left(\frac{(lnH_{n(t-1)} - lnL_{n(t-1)})^2}{4ln2}\right)$$

Where:
AV = Abnormal Volatility
(lnHu(t)- lnLu(t))2/4ln2 = UMA Stock Volatility
(lnHn(t-1)- lnLn(t-1))2/4ln2 = Market Volatility
H = Daily High
L = Daily Low
t = Date

In calculating abnormal liquidity risk, this study employs the methodology proposed by Amihud (2002), which assesses liquidity by relating stock returns to trading volume.

$$ALR = \left(\frac{1}{T}\sum_{t=1}^{T}\frac{|r_{u(t)}|}{V_{u(t)}}\right) - \left(\frac{1}{T}\sum_{t=1}^{T}\frac{|r_{n(t-1)}|}{V_{n(t-1)}}\right)$$

Information:
AV = Abnormal Liquidity Risk
$|r_{u(t)}|/V_{u(t)}$ = UMA Stock Liquidity Risk
$|r_{n(t-1)}|/V_{n(t-1)}$ = Market Liquidity Risk

t = Date

The regression method used is multiple linear regression to analyze the effect of UMA announcements on the three variables. The model used is:

$$Y_i = \beta_0 + \beta_1 UMA_i + \beta_2 KURS_i$$

where Yi represents abnormal return, abnormal volatility, or abnormal liquidity risk. Abnormal return is calculated using the Market Model, comparing actual stock returns to expected returns based on market performance. Abnormal volatility is measured by changes in return standard deviation before and after the UMA announcement, while abnormal liquidity risk is assessed using bid-ask spread or turnover ratio as indicators of liquidity change. Significance testing is conducted using t-tests and F-tests to determine the impact of UMA on each variable, while the USD/IDR exchange rate is included as a control variable to account for external macroeconomic influences. Including this control variable is expected to improve the model's accuracy in isolating UMA's effect on each observed market variable.

RESULTS AND DISCUSSION

Regression results of UMA and USD/IDR exchange rate on Abnormal Return, Abnormal Volatility, and Abnormal Liquidity Risk:

Y	Intercept	Sig	UMA	Sig	Kurs	Sig	Adj. R Square	F test sig
Abn Volatility	-0,321	0,005	0,021	0.000	2,190e-5	0,002	0,302	0,000
Abn Liquidity Risk	-6,856	0,927	-6,357	0,019	0,001	0,846	0,247	0,000
Abn Return	-0,149	0,581	0,005	0,587	9,262e-6	0,579	-0,017	0,853

The regression results indicate that the UMA variable significantly increases market volatility. This suggests that after a UMA announcement, stock prices become more volatile. This increase in price fluctuation occurs due to speculative investor reactions, information uncertainty, or sudden surges in trading activity following UMA announcements. These findings are consistent with Bali et al. (2009), who found that unusual news increases short-term volatility. Investor responses may also be driven by official statements released by listed companies after UMA announcements, which can influence investor perception and reduce information uncertainty (Lye et al., 2021).

The regression results also show that UMA has a significant negative effect on abnormal liquidity risk. This indicates that UMA announcements may decrease illiquidity, making UMA-affected stocks more liquid in the short term. This increase in liquidity can be explained by attention-driven buying, where investors react to prominent and accessible information (Barber & Odean, 2008). As a public regulatory signal, UMA attracts market attention and triggers increased trading activity. Additionally, Chordia and Subrahmanyam (2005) explain that liquidity can rise as new information enters the

market, even if the information is negative or serves as a warning. Thus, increased liquidity in UMA stocks reflects speculative and reactive market behavior toward regulatory signals.

In contrast to abnormal volatility and abnormal liquidity risk, the UMA variable does not significantly affect abnormal return. This may be due to the market having already responded to price movement patterns before the UMA announcement was issued (Chordia & Subrahmanyam, 2005). In such cases, the market reacts early to price or volume anomalies, so UMA announcements no longer serve as new information. Although UMA can increase investor attention and trading activity, this does not necessarily translate into significant price changes. The resulting liquidity increase is more reflective of higher transaction volume and frequency, not a shift in value expectations. According to Shleifer (2000), investors may actively trade UMA stocks based on speculation or temporary attention, without changing their assessment of the company's fundamental value. Moreover, Setiawan and Halim (2023) state that investors tend not to overreact to UMA announcements unless accompanied by significant changes in corporate fundamentals, which helps explain the stability of abnormal return.

CONCLUSION

This study concludes that *Unusual Market Activity* (UMA) announcements significantly affect abnormal volatility and abnormal liquidity risk, but not abnormal return. UMA is found to increase stock price volatility, reflecting market uncertainty and speculative reactions to regulatory signals. On the other hand, UMA decreases illiquidity, indicating that market attention to UMA stocks boosts trading volume and short-term liquidity. However, no significant change in abnormal return is observed, suggesting that although trading activity rises, investor expectations of fundamental value remain unchanged. This indicates that UMA influences market behavior in terms of activity, but not in price reassessment.

These findings have important implications for various stakeholders. For regulators, the results provide input to improve the effectiveness of UMA as a complementary tool of investor protection, potentially by ensuring that UMA guidance leads to healthier price adjustment. For investors and market participants, the insight that UMA increases volatility without yielding excess returns can inform trading strategies, especially for retail investors who are more vulnerable to speculative signals. For the general public and potential investors, education on the meaning and impact of UMA is essential so they understand the context of risk and information transparency in the capital market. Future research may explore moderating factors such as industry sector, investor type, and UMA frequency in influencing market reactions.

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