Behind the Split: Unveiling Insider Trading Patterns in Bursa Malaysia

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Abstract

This study investigates the existence and determinants of possible insider trading prior to stock split announcements among 100 companies listed on Bursa Malaysia from 2018 to 2023. Using panel data analysis, examined the impact of market capitalization, ownership structure, liquidity, and board independence on abnormal trading volumes as a proxy for insider trading activity. Four hypotheses are tested using fixed and random effects models, with the Hausman test guiding model selection. Results are compared to previous studies, and the paper concludes with policy recommendations and suggestions for future research.
Keywords: Insider Trading, Stock Splits, Bursa Malaysia, Market Capitalization, Ownership Concentration, Liquidity, Board Independence, Abnormal Trading Volume, Corporate Governance, Panel Data Analysis

Introduction

Insider trading is widely recognized as a significant threat to market integrity and investor confidence, particularly in emerging markets where regulatory frameworks and enforcement mechanisms are still evolving (Bhattacharya & Daouk, 2002; Wong et al., 2022). The act of trading on material, non-public information for personal gain undermines the fairness of capital markets and can distort price discovery, eroding trust among investors (Bhabra et al., 2022). In Malaysia, the Capital Markets and Services Act 2007 (CMSA) and the establishment of the Securities Commission Malaysia have provided a robust legal structure to deter and prosecute insider trading. However, the effectiveness of these regulations remains a subject of debate, as detection and prosecution rates are still relatively low (Jakpar et al., 2020; Wong et al., 2022).

Corporate events such as stock splits are common in the Malaysian market and are typically executed to enhance stock liquidity, adjust share price to an optimal trading range, and signal management's confidence in the company's future prospects (Chern et al., 2008; Ikenberry & Ramnath, 2002). However, these events can also create windows of opportunity for insiders to exploit privileged information, as significant price and volume movements often follow such announcements (Nguyen et al., 2017; Augustin et al., 2015). Previous

research, including the foundational study by Jakpar et al. (2020), has examined the relationship between stock splits and insider trading in Malaysia. Jakpar et al. (2020) found that while a notable proportion of firms exhibited suspicious trading activity prior to stock split announcements, the average abnormal volume was not statistically significant, and neither market capitalization nor major shareholder concentration were significant predictors.

Given the rapid evolution of market dynamics, trading technologies, and corporate governance practices in recent years, there is a pressing need to revisit this issue with updated data and expanded analytical frameworks. Recent literature suggests that firm-specific characteristics such as market capitalization, ownership concentration, liquidity, and board independence are critical determinants of information asymmetry and the likelihood of insider trading (Bae et al., 2020; Zhang & Zhang, 2023). Furthermore, the increasing complexity of trading strategies and the globalization of capital flows necessitate more sophisticated empirical approaches, such as panel data analysis, to accurately capture the determinants and patterns of insider trading.

This study addresses these gaps by investigating the existence and determinants of possible insider trading prior to stock split announcements among 100 companies listed on Bursa Malaysia from 2018 to 2023. By employing advanced panel data techniques and incorporating a broader set of governance and market variables, this research aims to provide a comprehensive and current assessment of insider trading risks in the Malaysian context, offering valuable insights for regulators, investors, and policymakers.

Research Motivation

Despite the enactment of the Capital Markets and Services Act 2007 and the establishment of the Securities Commission Malaysia, the detection and prosecution of insider trading remain limited (Jakpar et al., 2020; Wong et al., 2022). The dynamic nature of Malaysian capital markets, the rise of digital trading platforms, and evolving corporate governance practices necessitate a fresh empirical investigation. Prior studies have often focused on older datasets or neglected key governance variables such as board independence and liquidity (Nguyen et al., 2017; Jakpar et al., 2020). This study is motivated by the need to:

- Provide updated empirical evidence on insider trading before stock splits in Malaysia using a larger, more recent sample (2018–2023).
- Examine the influence of market capitalization, ownership concentration, liquidity, and board independence—variables that are theoretically and empirically linked to information asymmetry and governance quality (Bae et al., 2020; Wong et al., 2022).
- Inform regulators and investors about current vulnerabilities and guide policy enhancements for market integrity.

Literature Review

Insider trading has long been recognized as a threat to market fairness and efficiency, with regulators globally striving to detect and deter such activities (Bhattacharya & Daouk, 2002; Bhabra et al., 2022). In emerging markets, including Malaysia, the challenge is compounded by evolving regulations and varying enforcement effectiveness (Jakpar et al., 2020; Wong et al., 2022). The **misappropriation theory** (Baer, 2017; Boyle, 1992) and **agency theory** (Jensen & Meckling, 1976; Eisenhardt, 1989) provide the theoretical backbone for

understanding why insiders may exploit privileged information, especially around impactful corporate events like stock splits.

Empirical studies have utilized abnormal trading volumes as a proxy for insider trading, with Chae (2005) and Sarli et al. (2014) demonstrating that significant surges in trading activity often precede major announcements. Stock splits, while typically aimed at improving liquidity and signalling management confidence (Ikenberry & Ramnath, 2002; Chern et al., 2008), can also serve as opportunities for informed trading (Augustin et al., 2015; Doffou, 2003). Research shows that smaller firms and those with concentrated ownership are more susceptible to such activity due to higher information asymmetry and weaker governance (Nguyen et al., 2017; Bae et al., 2020). Conversely, strong board independence and robust governance structures are found to reduce the likelihood of insider trading (Mitchell, 2016; Sarli et al., 2014; Wong et al., 2022).

Recent studies have also highlighted the role of market liquidity, with mixed evidence on whether higher liquidity facilitates or deters insider trading (Bhabra et al., 2022; Kryzanowski & Zhang, 1996). In Malaysia, Jakpar et al. (2020) found that while 36.71% of their sample displayed suspicious trading before stock splits, the average abnormal volume was not statistically significant, and neither market capitalization nor major shareholder concentration were significant predictors. This finding contrasts with international evidence and underscores the need for updated and more granular analysis.

Theoretical Frameworks
- Misappropriation Theory: Emphasizes the misuse of confidential information, extending liability to outsiders.
- Agency Theory: Focuses on the conflict between principals and agents, highlighting the risk of managers exploiting privileged information.

Empirical Evidence
- Abnormal Volume as Proxy: Abnormal trading volumes are widely used to detect insider trading.
- Market Capitalization and Ownership: Smaller firms and those with concentrated ownership are more vulnerable to insider trading.
- Board Independence: Stronger governance reduces insider trading risk.
- Stock Splits: Often signal positive information and are associated with abnormal returns.

Contribution of This Study
This study makes several significant contributions to the literature on insider trading and corporate governance, particularly in the context of emerging markets:
- Empirical Update and Expansion: Building upon the work of Jakpar et al. (2020), this research analyzes a larger and more recent sample of 100 Bursa Malaysia companies over a six-year period (2018–2023), providing a timely and comprehensive update on insider trading patterns around stock splits.
- Methodological Advancement: By employing robust panel data analysis including fixed and random effects models, with the Hausman test for model selection—this study offers more reliable and nuanced insights compared to earlier studies that relied on cross-sectional or simpler regression techniques (Bae et al., 2020; Wong et al., 2022).

- Incorporation of Governance and Market Variables: This research extends the analytical framework by examining the impact of market capitalization, ownership concentration, liquidity, and board independence on abnormal trading volumes. The inclusion of board independence and liquidity, in particular, reflects recent advances in the literature and addresses gaps identified in earlier Malaysian studies (Bhabra et al., 2022; Zhang & Zhang, 2023).
- Comparative Perspective: The findings are systematically compared with previous Malaysian and international studies, highlighting both consistencies and new insights. Notably, while Jakpar et al. (2020) found no significant relationship between market capitalization, ownership concentration, and insider trading, this study identifies both as significant predictors, aligning with more recent international evidence (Nguyen et al., 2017; Bae et al., 2020).
- Policy and Investor Relevance: The study offers actionable recommendations for regulators to enhance surveillance and enforcement, and for investors to better assess risks associated with stock splits and governance structures. By identifying key firm-level determinants of insider trading, the research supports the development of targeted regulatory interventions and improved corporate governance practices.
- Foundation for Future Research: By demonstrating the value of a multi-variable, panel data approach and highlighting areas where insider trading risk remains significant, this study provides a robust foundation for future research on insider trading across different corporate events, sectors, and regional markets.

In summary, this research not only updates and expands the empirical evidence on insider trading in Malaysia but also advances methodological and theoretical understanding, offering practical implications for both market participants and policymakers.

Research Methodology
Objectives
➢ Detect possible insider trading prior to stock split announcements using ACAVT.
➢ Analyze the relationship between insider trading proxies and firm characteristics.

Hypotheses
- *H1*: Significant abnormal trading volume exists prior to stock split announcements.
- *H2*: Market capitalization is negatively associated with abnormal trading volume.
- *H3*: Ownership concentration is positively associated with abnormal trading volume.
- *H4*: Board independence is negatively associated with abnormal trading volume.

Data and Methodology
Sample Selection
- 100 Bursa Malaysia companies with stock splits (2018–2023).
- Excluded financial sector firms.

Variables
- Dependent: Abnormal Cumulative Average Volume Turnover (ACAVT)
- Independent: Market Capitalization (MCAP, log), Ownership Concentration (OWN, %), Liquidity (LIQ), Board Independence (BIND, %)

Model Specification

$$ACAVT_{it} = \alpha + \beta_1 MCAP_{it} + \beta_2 OWN_{it} + \beta_3 LIQ_{it} + \beta_4 BIND_{it} + \epsilon_{it}$$

Where:

- $ACAVT_{it}$ = Abnormal Cumulative Average Volume Turnover for firm i at time t

- α = Intercept term (constant)

- β_1 = Coefficient for Market Capitalization

- β_2 = Coefficient for Ownership Concentration

- β_3 = Coefficient for Liquidity

- β_4 = Coefficient for Board Independence

- $MCAP_{it}$ = Market Capitalization of firm i at time t

- OWN_{it} = Ownership Concentration of firm i at time t

Estimation
- Fixed Effects (FE), Random Effects (RE), Hausman test for model selection.
- Robust standard errors, diagnostic tests for multicollinearity and heteroskedasticity.

Findings
Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
ACAVT	0.012	0.034	-0.050	0.120
MCAP (log)	6.21	1.35	4.60	9.61
OWN (%)	38.5	15.2	10.0	80.0
LIQ	0.45	0.22	0.10	0.95
BIND (%)	45.0	10.0	30.0	70.0

Correlation Matrix

	ACAVT	MCAP	OWN	LIQ	BIND
ACAVT	1				
MCAP	-0.21	1			
OWN	0.18	-0.12	1		
LIQ	0.09	0.11	-0.07	1	
BIND	-0.15	0.05	-0.09	0.04	1

Panel Regression Results
Hausman Test: $\chi^2 = 11.2$, p < 0.05 → Fixed Effects preferred.
Fixed Effects Model (robust SE):

Variable	Coefficient	Std. Error	p-value
MCAP	-0.008	0.003	0.008
OWN	0.006	0.002	0.003
LIQ	0.003	0.002	0.134
BIND	-0.005	0.002	0.012

- R-squared (overall): 0.28
- F-statistic: 22.50, p < 0.001

Hypotheses Testing Summary

Hypothesis	Supported?	Interpretation
H1	Yes	Significant positive ACAVT prior to splits
H2	Yes	Larger firms have lower abnormal volume
H3	Yes	Higher ownership concentration increases abnormal volume
H4	Yes	More independent boards reduce abnormal volume

The results reveal that, in contrast to the earlier findings of Jakpar et al. (2020), there is significant abnormal trading volume prior to stock split announcements, particularly in firms with lower market capitalization, higher ownership concentration, and less independent boards. These findings are consistent with recent international literature (Bae et al., 2020; Nguyen et al., 2017; Zhang & Zhang, 2023), which emphasizes the importance of governance and ownership structure in mitigating or exacerbating insider trading risks. While liquidity was not found to be a significant determinant in this context, the roles of firm size, ownership, and board independence are clearly underscored. The study's findings have important implications for regulators, investors, and policymakers. Regulators should intensify surveillance of trading activity around corporate events, especially in firms exhibiting higher risk profiles as identified in this research. Enhanced governance standards, particularly regarding board independence, may further reduce the likelihood of illicit trading behaviors. For investors, awareness of these risk factors can inform more prudent investment decisions and foster greater confidence in market integrity.

The present study builds on and extends the findings of Jakpar et al. (2020), who reported no significant evidence of insider trading prior to stock splits in Malaysia, with market capitalization and major shareholder concentration found to be insignificant. In contrast, the current analysis, leveraging a larger and more recent dataset, finds significant positive abnormal trading volumes before split announcements, particularly in smaller firms with high ownership concentration and less independent boards. These results align with the findings of Nguyen et al. (2017) and Bae et al. (2020), who observed similar patterns in other Asian markets.

Internationally, studies such as Augustin et al. (2015) and Chern et al. (2008) have documented abnormal returns and trading volumes before major corporate events, supporting the notion that informed trading is a persistent issue. The present study's results

are consistent with Sarli et al. (2014), who found evidence of insider trading in Malaysia around M&A events, and with Chae (2005), who identified abnormal volume as a reliable indicator of informed trading. The inclusion of governance variables such as board independence further enhances the explanatory power of the model, as supported by Mitchell (2016) and Wong et al. (2022).

Study	Findings	Comparison with Current Study
Jakpar et al. (2020)	No significant overall insider trading; MCAP and OWN insignificant	The study finds both significant
Nguyen et al. (2017)	Small cap, high OWN → more insider trading	Consistent
Chern et al. (2008)	Positive abnormal returns pre-split	Consistent
Sarli et al. (2014)	Insider trading in M&A events	Consistent
Chae (2005)	Insider trading detected pre-event	Consistent
Augustin et al. (2015)	25% of M&A linked to insider trading	Consistent
Bae et al. (2020)	Insider trading risk higher in firms with weak governance and high ownership concentration	Consistent; confirms governance effect
Bhabra et al. (2022)	Corporate governance strengthens regulation, reduces insider trading in emerging markets	Consistent; supports governance role
Wong et al. (2022)	Regulatory enforcement and board independence reduce insider trading in Malaysia	Consistent; aligns with findings
Zhang & Zhang (2023)	Board independence negatively associated with insider trading in Asian markets	Consistent; supports board effect

Policy Implications
- Regulators: Should enhance monitoring of abnormal trading, especially in firms with high ownership concentration and less independent boards.
- Investors: Should be cautious of trading patterns prior to stock splits, especially in smaller or closely held firms.

Limitations

While this study provides important insights into the determinants of possible insider trading prior to stock split announcements in Bursa Malaysia, several limitations should be acknowledged:

- Market-Specific: The findings are derived from companies listed on Bursa Malaysia and may not be directly generalizable to other markets, particularly those with different regulatory environments, market structures, or corporate governance practices (Jakpar et al., 2020; Wong et al., 2022). The unique characteristics of the Malaysian capital market, such as ownership patterns and enforcement intensity, could influence the observed relationships.
- Proxy Limitation: The use of Abnormal Cumulative Average Volume Turnover (ACAVT) as a proxy for insider trading, while widely accepted in literature (Chae, 2005; Sarli et al., 2014), cannot definitively prove the occurrence of illegal insider trading. Abnormal

trading volumes may also result from speculative activity, market rumors, or other non-insider-related factors. Thus, ACAVT should be interpreted as an indicator of potential, not confirmed, insider trading.

- Data Constraints: The analysis relies exclusively on publicly available data, such as trading volumes, company reports, and regulatory filings. Informal information flows, private communications, or undisclosed enforcement actions are not captured in this dataset. This limitation may result in underestimation or misclassification of actual insider trading activity (Bhabra et al., 2022).

- Event Scope: This research focuses solely on stock splits as the corporate event of interest. Other significant events such as mergers and acquisitions, earnings announcements, or dividend changes—are not included in the current analysis. As a result, the findings pertain specifically to stock splits and may not reflect insider trading dynamics around other types of corporate actions (Augustin et al., 2015; Sarli et al., 2014).

- Causality: The panel data analysis identifies associations between firm characteristics and abnormal trading volumes but does not establish definitive causality. Unobserved confounding variables or reverse causality cannot be entirely ruled out, despite the use of fixed effects and robust estimation techniques (Bae et al., 2020).

Future Research
Building on the findings and limitations of this study, several promising avenues for future research are suggested:

- Cross-Market Studies: Future research should compare insider trading patterns and determinants across different ASEAN or emerging markets. Such comparative studies would help assess the universality of the observed relationships and provide insights into how regulatory frameworks and market maturity influence insider trading (Nguyen et al., 2017; Bhabra et al., 2022).

- Qualitative Insights: In-depth interviews with regulators, corporate insiders, and market participants could provide valuable qualitative evidence on the mechanisms, motivations, and deterrents of insider trading. This approach would complement quantitative findings and offer richer context for policy recommendations (Wong et al., 2022).

- Event Diversification: Expanding the scope to include other corporate events—such as mergers and acquisitions, earnings releases, or dividend announcements—would allow for a broader understanding of insider trading behavior and whether similar determinants apply across different event types (Augustin et al., 2015; Sarli et al., 2014).

- Advanced Detection: The adoption of advanced analytical techniques, such as machine learning algorithms or network analysis, could enhance the detection of suspicious trading patterns and improve the predictive accuracy of insider trading models. These methods can uncover complex, non-linear relationships that traditional econometric approaches may miss (Bae et al., 2020).

- Policy Evaluation: Longitudinal studies assessing the impact of regulatory changes, enforcement actions, or governance reforms on insider trading prevalence would provide valuable feedback for policymakers. Evaluating the effectiveness of specific interventions could guide future regulatory strategies and market best practices (Wong et al., 2022).

Conclusion

This study provides comprehensive and updated empirical evidence on the existence and determinants of possible insider trading prior to stock split announcements among 100 companies listed on Bursa Malaysia between 2018 and 2023. By employing robust panel data analysis and incorporating key firm-specific variables market capitalization, ownership concentration, liquidity, and board independence this research advances the understanding of how corporate characteristics shape the risk of informed trading in an emerging market context.

Following the conclusion of this study, both its theoretical and contextual contributions are found to be substantial and timely. From a theoretical standpoint, the research advances the understanding of insider trading by integrating misappropriation and agency theories within the empirical context of an emerging market. Specifically, it offers a nuanced framework for examining information asymmetry and governance quality in capital markets by demonstrating how firm-specific factors such as market capitalization, ownership concentration, liquidity, and board independence influence the likelihood of abnormal trading prior to stock split announcements.

Contextually, the study addresses a significant gap in the Malaysian literature by utilizing a recent and comprehensive dataset (2018–2023), applying advanced panel data techniques, and incorporating governance variables that have been previously underexplored. This not only enriches the empirical landscape but also positions Malaysian evidence within the broader international discourse, drawing attention to the unique vulnerabilities and regulatory challenges present in the local market. Importantly, the findings contribute meaningfully to existing knowledge by challenging earlier conclusions such as those by Jakpar et al. (2020) and demonstrating that insider trading risks remain particularly pronounced in smaller firms characterized by concentrated ownership and limited board independence. These insights are critical for regulators, investors, and policymakers aiming to enhance market integrity, as they underscore the necessity for targeted surveillance mechanisms and governance reforms tailored to the evolving dynamics of Bursa Malaysia.

Despite its contributions, the study acknowledges several limitations, including its market-specific focus, reliance on ACAVT as a proxy for insider trading, and the exclusive use of publicly available data. These constraints highlight the need for future research to explore insider trading across different markets, corporate events, and using advanced detection techniques. In summary, this research not only updates and extends the Malaysian evidence on insider trading around stock splits but also aligns local findings with broader international trends. By highlighting the persistent vulnerabilities and the protective role of good governance, the study provides a foundation for further academic inquiry and practical reforms aimed at enhancing transparency, fairness, and investor protection in Malaysia's capital market.

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