

Analysis of Big Trader Positions, Firm Profitability, Price Volatility and Their Impact on Sharia Stock Market Prices (A Study of the Jakarta Islamic Index on the Indonesia Stock Exchange)

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Abstract. An intriguing anomaly emerged in the Indonesian market between 2021 and 2023. While the broader Indonesia Sharia Stock Index (ISSI) exhibited a general upward trend (bullish), the Jakarta Islamic Index (JII), which tracks the 30 largest and most liquid Sharia stocks, experienced a persistent decline (bearish). This divergence is a novel phenomenon, as both indices had moved in a coherent manner in the preceding five-year period (2015–2020). This anomaly challenges the Efficient Market Hypothesis (EMH), which posits that stock prices reflect all available information and that such sustained divergence should not occur in an efficient market. This study analyzes the influence of big trader positions, firm profitability, and price volatility on the market price of Sharia stocks, focusing on the Jakarta Islamic Index (JII) in the Indonesia Stock Exchange from 2021 to 2023. The anomaly of JII's declining (bearish) trend amid the rising (bullish) trend of the Indonesia Sharia Stock Index (ISSI) forms the research background. The research objective is to empirically test the direct effects of big trader positions on firm profitability, price volatility, and sharia stock prices, as well as the mediating roles of profitability and price volatility in these relationships. A quantitative approach using quarterly panel data from 18 consistently listed JII stocks was employed. Data analysis was conducted using SEM-PLS. Key findings show that big traders' positions do not significantly affect profitability or move JII prices, even as JII prices declined during net buying. However, big traders significantly reduce volatility, acting as market stabilizers. Profitability strongly and positively influences JII prices, while low volatility is linked to price declines. Profitability does not mediate the impact of big traders, but volatility does: net buying lowers volatility, which subsequently reduces JII prices. The study offers theoretical contributions to market microstructure and signaling theories, as well as practical insights for investors and regulators in Islamic capital markets.

Keywords: big traders, profitability, price volatility, sharia stocks, Jakarta Islamic Index.

Received: 18 December 2025 | **Revised:** 17 January 2026 | **Accepted:** 19 January 2026 | **Published:** 30 March 2026

Suggested Citation

Wijayanto, T., Triyonowati, & Riharjo, I. B. (2026). Analysis of Big Trader Positions, Firm Profitability, Price Volatility and Their Impact on Sharia Stock Market Prices (A Study of the Jakarta Islamic Index on the Indonesia Stock Exchange). *Oblik i finansi*, 1(111), 83-93. [https://doi.org/10.33146/2518-1181-2026-1\(111\)-83-93](https://doi.org/10.33146/2518-1181-2026-1(111)-83-93)



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Аналіз позицій великих трейдерів, прибутковості фірм, волатильності цін та їхнього впливу на ціни шариатського фондового ринку (дослідження Джакартського ісламського індексу на Індонезійській фондовій біржі)

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Анотація. На індонезійському фондовому ринку між 2021 і 2023 роками виникла цікава аномалія. У той час як ширший Індонезійський шариатський фондовий індекс (ISSI) демонстрував загальний висхідний тренд (бичачий тренд), Джакартський ісламський індекс (JI), який відстежує акції 30 найбільших і найліквідніших шариатських компаній, зазнав стійкого зниження (ведмежий тренд). Ця дивергенція є новим явищем, оскільки обидва індекси рухалися узгоджено протягом попереднього п'ятирічного періоду (2015–2020). Отже, дана аномалія ставить під сумнів Гіпотезу ефективного ринку (ЕМН), яка стверджує, що ціни на акції відображають всю доступну інформацію, і що така стійка дивергенція не повинна виникати на ефективному ринку. Це дослідження аналізує вплив позицій великих трейдерів, прибутковості фірм і волатильності цін на ринкову ціну шариатських акцій, зосереджуючись на Джакартському ісламському індексі (JI) на Індонезійській фондовій біржі з 2021 по 2023 рік. Аномалія зниження (ведмежого) тренду JI на тлі зростаючого (бичачого) тренду Індонезійського шариатського фондового індексу (ISSI) формує основу дослідження. Метою дослідження є емпірична перевірка прямого впливу позицій великих трейдерів на прибутковість фірми, волатильність цін та ціни на акції шариату, а також оцінка посередницької ролі прибутковості та волатильності цін у цих взаємозв'язках. Автори застосували кількісний підхід з використанням квартальних панельних даних з 18 постійно котируваних акцій JI. Аналіз даних проводився за допомогою інструментарію SEM-PLS. Ключові результати показують, що позиції великих трейдерів суттєво не впливають на прибутковість або не змінюють ціни JI, навіть коли ціни JI знижувалися під час чистих покупок. Однак великі трейдери значно зменшують волатильність, діючи як стабілізатори ринку. Прибутковість сильно та позитивно впливає на ціни JI, тоді як низька волатильність пов'язана зі зниженням цін. Прибутковість не опосередковує вплив великих трейдерів, але волатильність – так: чисті покупки знижують волатильність, що згодом знижує ціни JI. Дослідження робить теоретичний внесок у теорії мікроструктури ринку та сигналізації, а також пропонує практичні поради для інвесторів та регуляторів на ісламських ринках капіталу.

Ключові слова: великі трейдери, прибутковість, волатильність цін, шариатські акції, Джакартський ісламський індекс.

1. INTRODUCTION

The global Islamic capital market has exhibited consistent growth, as illustrated by the upward movement of the MSCI World Islamic Index from 2010 to 2023 (Figure 1).



Figure 1. Movement of the MSCI World Islamic Index (2010–2023)

Source: MSCI World Islamic Index Factsheet (MSCI Inc., 2025).

This trend indicates a growing global interest among investors in Sharia-compliant equities. In parallel, Indonesia's Islamic stock market has experienced significant development in recent years, characterized by substantial growth in market capitalization and the number of listed Sharia-compliant securities. From 2019 to 2023, the market capitalization of Sharia stocks on the Indonesia Stock Exchange (IDX) increased by 64%, reaching IDR 6,145 trillion. The number of Sharia stocks also grew by 67% from 381 in the first semester of 2018

to 637 in the second semester of 2023, reflecting an expanding variety of instruments for market participants (Financial Services Authority, 2023).

However, an intriguing anomaly emerged in the Indonesian market between 2021 and 2023. While the broader Indonesia Sharia Stock Index (ISSI) exhibited a general upward trend (bullish), the Jakarta Islamic Index (JII), which tracks the 30 largest and most liquid Sharia stocks, experienced a persistent decline (bearish) (see Figure 2).

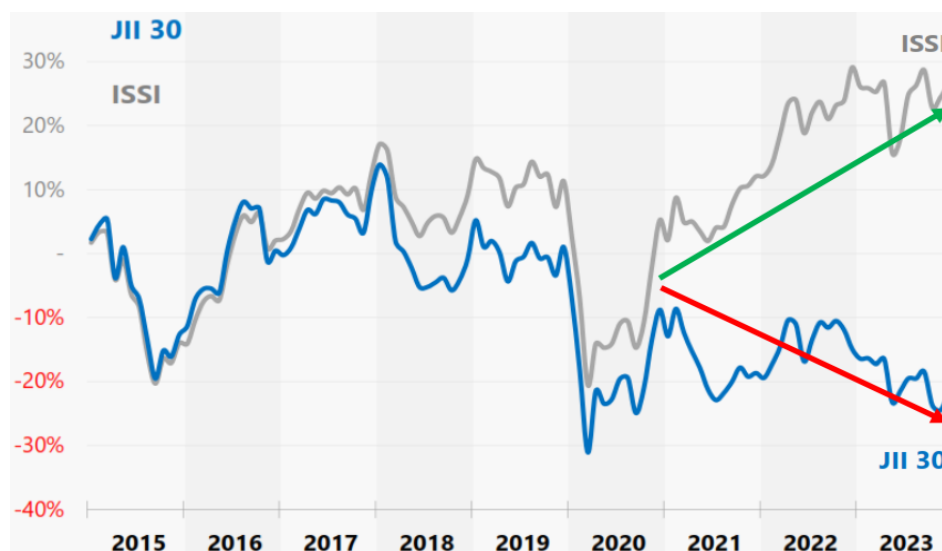


Figure 2. Movements of the ISSI and JII Indices

Source: Financial Services Authority (2023).

This divergence is a novel phenomenon, as both indices had moved in a coherent manner in the preceding five-year period (2015–2020). This anomaly challenges the Efficient Market Hypothesis (EMH), which posits that stock prices reflect all available information and that such sustained divergence should not occur in an efficient market (Fama, 1970). The JII's underperformance, particularly given its composition of high-capitalization, liquid stocks, necessitates a deeper investigation into the underlying factors.

Several potential factors could explain this anomaly. Firstly, the activity of big traders-market participants who transact in large volumes could significantly impact price dynamics. Market Microstructure Theory suggests that price formation is influenced by the interactions and trading processes of market participants, especially large-volume traders or market makers (O'Hara, 1998). In markets like Indonesia with voluntary market makers, large traders can influence supply and demand imbalances, thereby affecting price volatility and trends (Wang et al., 2025). Behavioral finance further suggests that smaller investors often mimic big traders (herding behavior), amplifying their market impact (Jegadeesh & Titman, 1993; Litimi et al., 2016).

Secondly, firm profitability, a key fundamental indicator, could influence stock prices. While EMH states that prices incorporate all public information, including profitability, information asymmetry (Akerlof, 1970), and Signaling Theory (Spence, 1973) could play a role, indicating that profitability acts as a signal of prospects, affecting investor perception and, consequently, stock prices. However, empirical evidence shows mixed results on the relationship between profitability and stock prices, especially in emerging markets (Leite et al., 2018).

Thirdly, stock price volatility, reflecting market uncertainty and risk, is a crucial consideration for investors. According to the Mixture of Distribution Hypothesis (MDH), volatility varies with the flow of information into the market (Clark, 1973). High volatility can deter investment, while low volatility may signal stability or stagnation.

A review of prior literature reveals a significant gap. While individual studies have examined the effects of big traders, profitability, or volatility on stock prices, no research has holistically integrated these variables within a single model for the Sharia stock market, particularly in explaining the JII-ISSI divergence.

2. LITERATURE REVIEW

2.1. Theoretical Framework

2.1.1. Market Microstructure Theory

This theory examines the process of price formation from a microscopic perspective, focusing on trading mechanisms, transaction processes, and interactions among market participants (O'Hara, 1998). It posits that prices are not merely an equilibrium of aggregate supply and demand but result from a dynamic process influenced by elements such as order flow, liquidity, and information asymmetry. In this framework, large trades by big traders are seen as potential sources of information or liquidity shocks that can temporarily or permanently impact prices and volatility. The theory provides the foundation for understanding how the sheer volume of transactions by big traders can mechanically affect market dynamics, order books (Harris, 2002), and ultimately, price discovery.

2.1.2. Signaling Theory

Developed by Spence (1973), this theory addresses problems of information asymmetry. It posits that in situations where one party has better information (e.g., corporate insiders or informed traders), they may send credible "signals" to the less-informed party. In capital markets, Firm profitability (e.g., high EPS) serves as a positive signal about future prospects, potentially leading to higher stock valuations. Conversely, the trading activity of big traders, often perceived as informed traders, can itself be a market signal. Their large net buying or selling can be interpreted by other investors as a signal of undisclosed positive or negative information, triggering herding behavior and moving prices (Manganelli, 2002).

2.1.3. The General Theory of Demand and Supply

Marshall's (1890) classical theory remains central to explaining price movements. Stock prices are determined by the intersection of demand (buy orders) and supply (sell orders). A significant imbalance, triggered by a large influx of buy or sell orders from big traders, can shift the demand or supply curve, leading to price adjustments until a new equilibrium is found. This theory directly links the scale of big trader activity to potential price pressure and market disequilibrium.

2.1.4. Modern Portfolio Theory (MPT) & Behavioral Finance

MPT (Markowitz, 1952) introduces volatility as a primary measure of risk. Investors are assumed to be risk-averse, requiring higher returns for bearing higher volatility. This connects volatility directly to required returns and asset pricing. Behavioral finance challenges the rational investor assumption of MPT and EMH. It incorporates psychological biases (e.g., herding, overreaction) to explain market anomalies. In this view, big traders can exploit or trigger these biases, causing prices to deviate from fundamental values (Shiller, 2003).

2.2. Review of Empirical Studies and Research Gap

2.2.1. Big Trader, Profitability, and Stock Prices

The empirical literature examining the influence of large traders on financial markets presents a complex and often contradictory landscape, particularly regarding their impact on stock prices and corporate fundamentals. A significant body of international research suggests that big traders, often characterized as informed traders or market makers, possess the capacity to affect market dynamics materially. Studies such as those by Menkveld and Wang (2013) and Zhang et al. (2017) highlight the positive role of designated market makers as big traders in enhancing price efficiency and reducing mispricing. Conversely, research by Aggarwal and Wu (2006) and Goldman and Strobl (2013) illustrate the potential for large shareholders to engage in price manipulation through strategic large trades. Further complexity is added by findings that big trader activity can correlate with market returns (Ülkü, 2012). However, evidence from the broader empirical literature, including studies in emerging market contexts, challenges the assumed omnipotence of big traders, showing that their direct effects on stock prices are often limited or statistically insignificant. This divergence in findings underscores a critical ambiguity: whether big traders are powerful price-setters, neutral liquidity providers, or merely reactive participants in an efficient market. Moreover, empirical research examining the role of big traders in relation to firm profitability remains relatively scarce. Drawing on the theoretical insights of Jarrow (1992), who characterizes big traders as informed traders with superior access to information, it becomes crucial to investigate further whether these resource-advantaged market participants are indeed capable of accurately anticipating and predicting firms' future profitability.

2.2.2. Profitability and Stock Prices

The empirical relationship between firm profitability and equity valuation remains a subject of significant debate within financial literature. While fundamental analysis posits a strong positive linkage, empirical findings reveal considerable variability. Several studies affirm the conventional wisdom, demonstrating that higher profitability, often measured by Earnings Per Share (EPS), correlates positively with stock prices, as it signals robust financial health and future growth potential to investors (Jiang et al., 2018). However, this relationship is not deterministic and appears to be moderated by contextual market factors. Research indicates that the signaling power of profitability can diminish or even reverse under certain conditions. For instance, profitability gains may fail to translate into higher stock prices during broad market downturns (bearish phases) or when reported earnings disappoint relative to inflated market expectations (Liu et al., 2023). This suggests that investor sentiment, macroeconomic conditions, and the alignment of realized performance with market expectations play crucial roles in determining how the market prices profitability information. Consequently, these mixed and context-dependent findings underscore the need for further

empirical investigation to clarify the conditions under which firm profitability is effectively capitalized into stock prices, particularly in markets characterized by heightened uncertainty, heterogeneous investor behavior, or dominant trading by large market participants.

2.2.3. Volatility and Stock Prices

The impact of price volatility on stock valuation presents a similarly complex and dual-natured picture. Traditional finance theory, grounded in the principles of risk and return, predominantly associates high volatility with increased investment risk. Consequently, investors demand a higher risk premium, which exerts downward pressure on current stock prices (Vasudevan, 2023; Bae et al., 2007; Nguyen et al., 2020). This view primarily frames volatility as a cost or deterrent. Conversely, an alternative perspective emerging from empirical studies suggests that volatility can also be associated with opportunity. Some research suggests that periods of high volatility are followed by elevated returns, supporting a classic risk-compensation mechanism in which investors are rewarded for enduring uncertainty (Ali et al., 2020; Bu et al., 2019). This dichotomy highlights that the effect of volatility is not monolithic; it can be perceived negatively as destabilizing noise or positively as a reflection of informed trading and price discovery, depending on its source and the market environment.

2.2.4. Identified Research Gaps

A critical review of the extant literature reveals three primary research gaps that this study aims to bridge. Firstly, there is a notable absence of a comprehensive, integrative model. Prior research has largely examined the variables of big trader activity, firm profitability, and price volatility in isolation or in pairwise relationships, to the best of our knowledge, no prior study has proposed and empirically tested a unified framework that simultaneously incorporates these elements, with firm profitability and price volatility positioned as potential mediating channels through which big traders influence prices, particularly within the niche of Sharia-compliant equities. Secondly, the literature exhibits a significant measurement gap concerning big traders. In markets like Indonesia, which operate without formally designated market makers, the definition and identification of influential traders remain ambiguous. Previous studies often employ arbitrary metrics that lack a theoretical or empirical basis for defining a meaningful threshold of market influence. This study addresses this by operationalizing the big trader position via cumulative volume thresholds. Thirdly, the persistent inconsistency in empirical findings regarding the power and effect of big traders, as well as the conflicting results on firm profitability and price volatility, creates a compelling rationale for a fresh investigation. This study seeks to reconcile these contradictions by testing the proposed integrative model in the specific, anomalous context of the Jakarta Islamic Index's (JII) underperformance relative to the broader Sharia market.

3. RESEARCH METHODOLOGY

3.1. Research Design

This study employs a quantitative research design with a causal-explanatory approach to investigate the structural relationships between big trader positions, firm profitability, price volatility, and JII prices. The research utilizes panel data, and the analytical framework adopts PLS-SEM. All statistical inferences are conducted at a 5% significance level.

3.2. Population and Sample

The population comprises all stocks consistently listed in the JII throughout the study period of 2021-2023. From this population, a saturated sample of 18 companies that maintained uninterrupted JII membership during the entire observation period was selected. The sample yields 216 observations (18 firms × 12 quarters).

3.3. Hypothesis Development

This study proposes the following hypotheses:

- H1: Big trader positions significantly affect firm profitability.
- H2: Big trader positions significantly affect the JII stock price.
- H3: Big trader positions significantly affect the JII price volatility.
- H4: Firm profitability significantly affects the JII stock price.
- H5: The JII price volatility significantly affects the JII stock price.
- H6: Firm profitability significantly mediates the effect of big trader positions on the JII stock price.
- H7: The JII price volatility significantly mediates the effect of big trader positions on the JII stock price.

3.4. Variable Operationalization and Measurement

3.4.1. Big Trader Positions

This study introduces a novel operationalization based on cumulative volume thresholds. Big trader positions were initially conceptualized using cumulative thresholds derived from Net Volume (NV), defined as the difference between buy and sell trading volumes, calculated for the top 50%, 60%, 70%, 80%, and 90% of brokers ranked by total trading volume for each JII stock.

However, preliminary multicollinearity diagnostics revealed substantial correlations among the indicators, with initial VIF values exceeding 10 for NV60, NV70, and NV80, indicating potential measurement redundancy, to address this, indicators with the lowest outer weights were sequentially removed: NV50 was first deleted, followed by NV70, resulting in a refined measurement model with acceptable multicollinearity and improved indicator reliability (see Appendix, Table 1). In accordance with established PLS-SEM guidelines (Hair et al., 2019), a refinement procedure was implemented to achieve a parsimonious and statistically robust measurement model while preserving discriminant validity. Consequently, NV50 and NV70 were removed from the model.

The final operationalization retained NV60, NV80, and NV90, which collectively capture the concentration of trading activity among dominant market participants while effectively mitigating concerns about multicollinearity.

3.4.2. Firm profitability

Profitability is operationalized through Earnings Per Share (EPS), which is calculated as net income divided by the number of outstanding shares. This metric provides a standardized measure of profitability that accounts for differences in company size and capital structure, thereby ensuring a consistent comparison across companies.

3.4.3. Price Volatility

Price volatility is measured using two complementary yet distinct indicators to capture different dimensions of price fluctuation. The first indicator is the standard deviation of daily closing prices within each quarter,

which reflects absolute volatility at the firm level. The second indicator is the beta coefficient, which measures the sensitivity of individual stock prices relative to JII market price movements, thereby capturing systematic (relative) price volatility. Both measures were retained in the final model after confirming acceptable discriminant validity and addressing potential multicollinearity through refinement of the measurement model.

3.4.4. JII Price

The JII prices are measured using quarterly simple moving averages of daily closing prices. This approach smooths out daily fluctuations while preserving underlying price trends, making it suitable for quarterly analysis of fundamental relationships.

3.5. Research Model

Figure 3 presents the final research model.

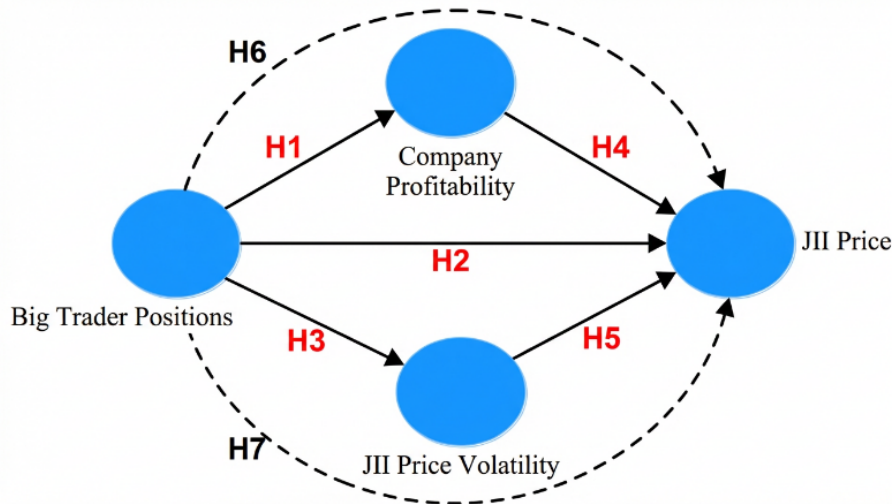


Figure 3. Research Model

Source: Compiled by the authors (2025).

3.6. Data Collection and Analysis

Data for this study were systematically compiled from official financial databases, and daily stock trading data, including prices, volumes, and EPS for all JII constituent companies, were sourced from the Indonesia Stock Exchange (IDX). The dataset covers the period from Q1 2021 to Q4 2023, aligning with the identified market anomaly. Data analysis was conducted using PLS-SEM via SmartPLS 3.0. The analysis focused on testing the structural relationships specified in the research hypotheses. Mediation analysis was also performed to examine the indirect pathways (H6 and H7), evaluating whether the big trader’s influence on JII price operates through the channels of firm profitability and price volatility.

multicollinearity in accordance with established PLS-SEM guidelines (Hair et al., 2019). The assessment confirmed that all indicators for big trader positions, firm profitability, price volatility and JII price demonstrated adequate reliability and discriminant validity, with Average Variance Extracted (AVE) values exceeding 0.5 and Cronbach’s Alpha values above 0.7, outer loadings above the recommended threshold of 0.7, and Variance Inflation Factor (VIF) values within acceptable limits, indicating no serious multicollinearity issues surpassing the recommended thresholds for acceptable convergent validity and internal consistency (see Appendices). The results of the PLS-SEM analysis are summarized in Table 1, highlighting the validated measurement model and its readiness for subsequent hypothesis testing.

4. RESULTS AND DISCUSSION

4.1. Hypothesis Testing Results

Before conducting hypothesis testing, we evaluated the measurement model for validity, reliability, and

Table 1. Hypothesis Testing Results

Hypothesis	Path	Path Coefficient	p-value	Result
Direct Effects:				
H1	Big Trader → Profitability	-0.028	0.298	Rejected
H2	Big Trader → JII Price	-0.023	0.220	Rejected
H3	Big Trader → Volatility	-0.055	0.018	Accepted
H4	Profitability → JII Price	0.451	0.000	Accepted
H5	Volatility → JII Price	0.483	0.000	Accepted
Indirect (Mediating) Effects:				
H6	Big Trader → Profit. → JII Price	-0.013	0.302	Rejected
H7	Big Trader → Vol. → JII Price	-0.027	0.039	Accepted

Source: Author's analysis data (2025).

H1: Big trader positions → firm profitability.

The effect was negative and not significant ($\beta = -0.028$, $p = 0.298$). Thus, **H1 is rejected**. Big trader activity did not significantly predict firm profitability.

H2: Big trader positions → JII price (direct).

The effect was negative and not significant ($\beta = -0.023$, $p = 0.220$). Thus, **H2 is rejected**. Big traders did not have a significant direct impact on JII prices.

H3: Big trader positions → price volatility.

The effect was negative and significant ($\beta = -0.055$, $p = 0.018$). Thus, **H3 is accepted**. Big trader activity significantly reduced price volatility, indicating a market-stabilizing role.

H4: Firm profitability → JII price.

The effect was positive and highly significant ($\beta = 0.451$, $p = 0.000$). Thus, **H4 is accepted**. Firm profitability was a strong, positive driver of JII stock prices.

H5: Price Volatility → JII price.

The effect was positive and highly significant ($\beta = 0.483$, $p = 0.000$). Thus, **H5 is accepted**. Higher JII price volatility was associated with higher prices in this context, suggesting that low volatility contributed to price declines during the bearish period.

H6: Big trader positions → firm profitability → JII price (mediation).

The indirect effect was negative and not significant ($\beta = -0.013$, $p = 0.302$). Thus, **H6 is rejected**. Firm profitability did not mediate the relationship between big traders' positions and prices.

H7: Big trader positions → price volatility → JII price (mediation).

The indirect effect was negative and significant ($\beta = -0.027$, $p = 0.039$). Thus, **H7 is accepted**. Volatility fully mediated the effect of big traders' positions on JII prices. Big traders reduced volatility, which subsequently led to lower prices.

4.2. Structural Model (Inner Model) Evaluation

The structural model showed strong explanatory power, with an R-square value of 0.791 for the JII Price. This indicates that the model (comprising big trader

positions, firm profitability, and price volatility) explains 79.1% of the variance in Shariah stock market prices, demonstrating a robust predictive capability.

4.3 Discussion of Findings

The results offer a clear explanation for the bearish anomaly of the JII during the 2021-2023 period. Contrary to the common perception of big traders as powerful market movers, their net buying activity did not directly drive up JII prices (H2 not supported) nor did it predict superior firm profitability (H1 not supported). This challenges the notion that big traders are consistently superior, informed traders in this specific Shariah equity context, and aligns with the perspective of market efficiency, where large trades do not guarantee abnormal returns.

The most significant finding is the market-stabilizing role of big traders. Their presence significantly reduced price volatility (H3 supported), suggesting they acted as de facto liquidity providers, absorbing order imbalances and dampening excessive price swings. However, in the overarching bearish market sentiment, this stabilization had a paradoxical effect. Lower volatility was associated with declining JII prices (H5 supported), indicating a market environment characterized by low trading momentum, weak speculative interest, and persistent selling pressure. Consequently, price volatility emerged as the key mediating channel (H7 supported). The influence of big traders on JII prices was not direct but fully mediated through their impact on price volatility: their net buying calmed the market, which inadvertently contributed to the price downturn. In stark contrast, firm profitability (EPS) remained a robust and positive driver of JII prices (H4 supported). This underscores the enduring relevance of fundamental analysis for investors in Shariah-compliant equities, even during market-wide declines.

5. CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

This study concludes that the anomalous underperformance of the JII was shaped by a distinct dynamic where big traders functioned as stabilizers rather than price leaders. Their activity reduced market volatility, which, in the prevailing bearish sentiment, translated into lower prices. Firm profitability, however, retained its fundamental importance. Therefore, the JII's decline can be interpreted as a scenario in which market stabilization through liquidity provision coincided with weak fundamental momentum and negative investor sentiment.

From a theoretical perspective, these findings contribute to Market Microstructure Theory by demonstrating that the influence of large traders may operate indirectly through price volatility dynamics, rather than through direct price pressure. The results also refine Signaling Theory by showing that under certain market conditions, fundamental signals, particularly firm profitability, can dominate trading-based signals generated by large market participants.

From a practical standpoint, this study underscores the importance for investors to prioritize fundamental profitability analysis when evaluating Shariah-compliant stocks. Big trader activity should be interpreted with caution, as it may reflect liquidity provision and market stabilization rather than an immediate bullish signal.

For regulators and exchange authorities, the documented stabilizing role of big traders provides a strong rationale for considering policies or incentive mechanisms that encourage liquidity provision, thereby enhancing the resilience and overall quality of the Shariah capital market.

5.2. Limitations of the Study

While this study provides valuable insights, several limitations should be acknowledged.

(1) Although the research model explained a substantial portion (79.1%) of the variance in JII stock prices, the remaining 20.9% suggests that other influential factors, such as macroeconomic variables (interest rates, exchange rates), global market sentiment, or sector-specific shocks, were not included and warrant future investigation.

(2) The operationalization of "big trader" was based on aggregated net volume from the most active brokers. This method does not distinguish between different types of large players (e.g., domestic institutional investors, foreign investors, or corporate insiders), whose motivations and market impacts may differ significantly.

(3) The study period (2021–2023) coincided with a distinct bearish phase for the JII. The findings, particularly regarding the negative price impact of reduced volatility, may be context-specific and not generalizable to bullish or stable market conditions. Future research should test this model across different market cycles.

5.3. Recommendations

Based on the empirical evidence, this study offers several targeted recommendations with direct relevance to investors, researchers, and market authorities.

For investors and market practitioners, the findings emphasize the continued importance of fundamental analysis, particularly firm profitability (EPS), as a key determinant of Shariah stock prices, even during prolonged market downturns. Big trader activity should be interpreted cautiously, as net buying may primarily reflect liquidity provision and market stabilization rather than an immediate bullish signal. Accordingly, investors are advised to avoid mechanical herding behavior and to incorporate market volatility as an informative indicator of underlying market conditions. In bearish phases, subdued volatility may signal weak trading momentum and persistent downside pressure, rather than genuine market strength.

For future research, this study suggests extending the model by incorporating macroeconomic factors and market sentiment measures to enhance explanatory power. Further differentiation among types of large traders, such as foreign institutional investors, domestic funds, and insiders, would allow for a more granular understanding of heterogeneous trading strategies and their market effects. Comparative analyses across different market regimes and between Shariah and conventional indices are also recommended to assess the robustness and generalizability of volatility's mediating role. Additionally, employing longer time horizons or high-frequency data may better capture the dynamic and potentially lagged transmission mechanisms from large trader activity to volatility and prices.

For regulators and exchange authorities, the documented stabilizing role of big traders provides a policy-relevant insight. Consideration could be given to regulatory frameworks or incentive schemes that encourage qualified market participants to act as liquidity providers or Designated Market Makers (DMMs) in Shariah-compliant equities, particularly for less liquid stocks, thereby enhancing market depth and resilience. Improvements in transactional transparency, where feasible and without compromising confidentiality, alongside continued investor education initiatives, would further support a more efficient and informed Shariah capital market.

CRedit Author Statement

Teguh Wijayanto: Conceptualization, Methodology, Formal Analysis, Writing – Original Draft Preparation, Writing – Review & Editing; **Triyonowati:** Methodology, Data Curation, Validation, Writing – Review & Editing; **Ikhsan Budi Riharjo:** Conceptualization, Investigation, Software, Writing – Review & Editing.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

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APPENDICES

Table 1. Variance Inflation Factor (VIF), Outer Loadings, and Outer Weights of Big Trader Position Indicators

Indicator	Initial VIF	VIF (without NV50)	VIF (without NV50 & NV70)	Initial Outer Loadings	Outer Loadings (without NV50 & NV70)	Initial Outer Weights	Outer Weights (without NV50 & NV70)	Outer Weights (without NV50)
NV50	4,704	-	-	0,875	-	0,167	-	-
NV60	11,253	8,612	4,051	0,945	0,916	0,226	0,337	0,263
NV70	19,925	19,388	-	0,974	-	0,205	-	0,239
NV80	15,307	14,937	8,679	0,964	0,977	0,252	0,379	0,293
NV90	4,648	4,616	4,564	0,880	0,923	0,225	0,348	0,263

Source: SmartPLS output (2025).

Notes:

- NV50 = net volume of the top 50% of the most active brokers based on cumulative trading volume
- NV60 = net volume of the top 60% of the most active brokers based on cumulative trading volume
- NV70 = net volume of the top 70% of the most active brokers based on cumulative trading volume
- NV80 = net volume of the top 80% of the most active brokers based on cumulative trading volume
- NV90 = net volume of the top 90% of the most active brokers based on cumulative trading volume

Table 2. Variance Inflation Factor (VIF) and Outer Weights of Price Volatility Indicators

Indicator	VIF	Outer Weights
Standard Deviation	4,358	0,562
Market Beta	4,358	0,470

Source: SmartPLS output (2025).

Table 3. Outer Loadings of Research Variable Indicators

Indicator \ Variable	Big Trader Position	Firm Profitability	Price Volatility	JII Price
Market Beta			0,963	
EPS		1,000		
NV60	0,916			
NV80	0,977			
NV90	0,923			
Standard Deviation			0,974	
JII Price				1,000

Source: SmartPLS output (2025).

Table 4. Average Variance Extracted (AVE) and Cronbach’s Alpha of Research Variables

Variable	AVE	Cronbach’s Alpha
Big Trader Position	0,881	0,932
Firm profitability	1,000	1,000
Price Volatility	0,938	0,935
JII Price	1,000	1,000

Source: SmartPLS output (2025).

Table 5. R-Square (R²) of the Endogenous Variable

Variable	R Square	Interpretation
JII Price	0,791	Strong

Source: SmartPLS output (2025).