# Trading Volume as An Informational, Behavioural, And Risk Signal in Equity Markets: An Integrated Iapm Perspective

Keerthana[1], Arsha Ajayan[2], Anneta Ginu[3], Jovan Agith[4] Dr. R. Suma[5]
[1,2,3,4]*PGDM Students, SCMS Cochin School of business, Kochi, Kerala*
[5] *Assistant Professor, SCMS Cochin School of business.*

***Abstract*—A recent financial literature increasingly recognises trading volume not merely as a confirmation tool in technical analysis, but as an important carrier of market information and investor behaviour. This article synthesizes contemporary theoretical and empirical research to examine how trading volume reflects information flow, investor sentiment, liquidity needs, and uncertainty in equity markets. Unlike traditional views that focus solely on price–volume confirmation, this study highlights the nonlinear and context-dependent role of trading volume in explaining return dynamics, volatility, and market efficiency. Using insights drawn from recent academic studies and illustrative secondary data, the article demonstrates that trading volume influences equity prices differently across market conditions, return distributions, and investor regimes. The findings suggest that trading volume plays a critical role in investment analysis and portfolio management by improving the interpretation of price movements, forecasting volatility, and identifying temporary mispricing.**

***Index Terms*—Trading Volume, Information Flow, Investor Behaviour, Equity Markets, IAPM.**

## I.INTRODUCTION

Equity markets are fundamentally shaped by the interaction of prices and quantities. While price movements attract primary attention in both academic research and practical investment analysis, trading volume represents the intensity and nature of market participation underlying those price changes. In the context of Investment Analysis and Portfolio Management (IAPM), understanding not only the direction of price movements but also the forces driving those movements is essential for informed decision-making.

Historically, trading volume was treated as a supplementary indicator used to confirm price trends. Classical technical analysis frameworks suggested that rising prices accompanied by increasing volume indicated strong trends, while divergences between price and volume signalled weakness. Although these principles remain useful, they provide an incomplete understanding of the role of trading volume in modern financial markets.

Recent research challenges this narrow interpretation by demonstrating that trading volume conveys independent informational and behavioural content. Advances in market microstructure theory show that volume responds to information arrival and heterogeneous investor beliefs. Behavioural finance links volume surges to psychological biases such as overconfidence, attention-driven trading, and herding. Asset pricing literature reveals that the relationship between trading volume and returns is nonlinear, context-dependent, and sensitive to market regimes.

In an era characterised by rapid information dissemination, algorithmic trading, and global interconnectedness, trading volume has become a critical signal for interpreting market dynamics. This article aims to provide a comprehensive and updated analysis of the importance of trading volume by synthesising contemporary theoretical and empirical research within the IAPM framework.

## II.TRADING VOLUME AND INFORMATION FLOW IN FINANCIAL MARKETS

One of the central themes in modern market microstructure theory is that trading volume responds directly to the arrival of information. When new

information public or private enters the market, investors adjust their expectations at different speeds and intensities, resulting in trading activity. Trading volume therefore acts as an observable proxy for otherwise unobservable information flow.

Recent theoretical models suggest that volume increases when investors disagree about the implications of new information. This disagreement leads to higher trading as investors rebalance portfolios based on differing interpretations. As information becomes fully incorporated into prices, disagreement declines and trading volume subsides. Thus, volume not only signals information arrival but also reflects the process of information assimilation.

Moreover, empirical studies indicate that periods of unusually high trading volume often precede significant price adjustments, implying that volume may contain predictive information about future returns or volatility. This challenges the notion that prices instantaneously reflect all available information and highlights the importance of volume in understanding market efficiency.

## III. NONLINEAR AND STATE-DEPENDENT RELATIONSHIP BETWEEN TRADING VOLUME AND RETURNS

Early empirical research assumed a stable and linear relationship between trading volume and stock returns. However, recent studies demonstrate that this relationship is highly nonlinear and varies across different market conditions. The same level of trading volume may have opposite implications depending on whether the market is experiencing optimism, pessimism, or heightened uncertainty.

Research using advanced econometric techniques shows that trading volume has a positive association with future returns during favourable market conditions but may predict negative returns during periods of market stress. This asymmetry suggests that trading volume interacts with investor sentiment and risk perceptions in complex ways.

Furthermore, evidence indicates that volume–return relationships differ across the distribution of returns. Trading volume tends to have stronger predictive power during extreme market movements than during normal periods. This explains why earlier studies that focused on average relationships often produced mixed or inconclusive results.

## IV. TRADING VOLUME AND INFORMATION FLOW

### 1.Information Arrival and Market Reaction

Market microstructure theory emphasises that both prices and volume respond to the arrival of information. When new information enters the market whether public announcements, private signals, or macroeconomic developments investors interpret and act on it at different speeds. This asynchronous adjustment process generates trading activity.

Trading volume therefore acts as an observable proxy for the intensity of information flow. Periods of high volume often coincide with increased uncertainty or disagreement among investors, while low volume reflects consensus or informational stagnation.

### 2.Volume as a Learning Mechanism

Recent theoretical models suggest that traders use past trading volume to infer the presence of private information. Unexpected increases in volume may signal informed trading, prompting other market participants to revise their beliefs and adjust strategies. This feedback loop accelerates information revelation but can also amplify volatility.

Thus, volume plays an active role in the price discovery process rather than merely reflecting it.

## V. NONLINEAR RELATIONSHIP BETWEEN TRADING VOLUME AND RETURNS

### 1.Limitations of Linear Models

Early empirical studies assumed a stable linear relationship between trading volume and stock returns. However, results were often inconsistent, leading to debates about whether volume truly mattered for return predictability.

Recent research resolves this puzzle by demonstrating that the volume return relationship is nonlinear and state-dependent. Trading volume may predict positive returns under certain market conditions and negative returns under others.

### 2.Market Regimes and Conditional Effects

Evidence shows that trading volume has stronger predictive power during extreme market conditions

such as booms, crashes, or periods of heightened uncertainty than during normal times. Volume tends to exert little influence near the centre of the return distribution but becomes significant in the tails.
This explains why earlier studies focusing on average effects failed to detect robust relationships.

## VI. TRADING VOLUME AND INVESTOR BEHAVIOUR

### 1.Sentiment and Psychological Biases

Behavioural finance highlights the role of investor psychology in driving trading volume. Overconfidence leads investors to trade excessively, while attention-driven behaviour causes surges in volume following salient news or market trends. Such sentiment-driven volume often results in temporary price distortions rather than permanent value changes.

### 2. Herding and Speculative Trading

High trading volume may reflect herding behaviour, where investors mimic others' actions rather than relying on fundamentals. This can inflate asset prices during bullish phases and exacerbate declines during downturns. Distinguishing between informed and sentiment-driven volume is therefore crucial for effective investment analysis.

## VII. TRADING VOLUME, VOLATILITY, AND UNCERTAINTY

### 1.Volume–Volatility Link

A robust finding across financial markets is the positive association between trading volume and return volatility. High volume reflects intensified trading and rapid information processing, leading to larger price fluctuations.

### 2.Volatility Clustering and Risk

Theoretical models show that traders adjust behaviour based on perceived information asymmetry inferred from volume. Rising volume increases uncertainty, prompting cautious trading and contributing to volatility clustering.
For portfolio managers, trading volume thus serves as a valuable indicator of market stress and risk conditions.

## VIII. IMPLICATIONS FOR INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT

### 1.Enhancing Price Interpretation

Incorporating volume analysis improves the interpretation of price signals by revealing market conviction. Price movements supported by strong volume are more likely to persist than those occurring on thin trading.

### 2.Liquidity and Execution Risk

Trading volume informs investors about liquidity conditions. Low-volume securities expose portfolios to higher transaction costs and execution risk, while sudden volume spikes may indicate changing market dynamics.

### 3.Portfolio Construction and Risk Management

Volume analysis aids in identifying periods of elevated risk, enabling portfolio managers to adjust exposure, hedge positions, or delay execution.

## IX. INTEGRATED DISCUSSION

The synthesis of contemporary literature reveals that trading volume is a multidimensional indicator capturing information flow, behavioural dynamics, and market structure. Its effects on returns and volatility depend on market regimes, investor composition, and prevailing sentiment.

Recognising this complexity allows investors to move beyond simplistic technical rules and adopt a more nuanced analytical framework consistent with modern IAPM practices.

## X. CONCLUSION

This article demonstrates that trading volume plays a central and multifaceted role in equity market analysis. Recent theoretical and empirical research shows that volume reflects information arrival, investor behaviour, liquidity needs, and uncertainty, all of which influence price dynamics and risk. Within the framework of Investment Analysis and Portfolio Management, integrating trading volume as an informational and behavioural signal enhances investment decisions, portfolio efficiency, and risk management. Trading volume should therefore be

regarded not as a secondary indicator but as a core component of modern equity market analysis.

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