Noise: Making Imperfect Financial Market Possible

Saurabh Tomar[1],Dr.Daljeet Singh Wadhwa[2]

1.Associate Professor, Department of Management, Bhilai Institute of Technology

e-mail: tomar.mba@gmail.com

2. Assistant Professor Department of Management, Bhilai Institute of Technology

e- mail:daljeetsingh.bit@gmail.com

Abstract:

The Notion of Noise trader cam into light side by side of other behavioral finance literature. They are assumed to have contrasting belief and psychology as that of rational trader. Though Noise trading is a short term phenomena in which a synchronous group of individual derive the value of security away from its fundamental value. There is always a interaction taking place between information trader and Noise Trader where information trader are bound to be benefited as they make their trade decisions on the basis of Information .The paper critically examine a variety of literature available for relatively new phenomena of Noise based trading.

Keywords: Noise, Noise Trader, Information Trader, Rational Finance.

1.Introduction:

The people often consider Noise as it was information and trade in Financial Markets based on it. The combined effect of these trades often make Financial Market wander away from efficiency, and it also lead the asset prices to remain distant from their true theoretical values. Though the proponent of rational finance theory disregard the effect of Noise considering it as a very short term phenomena, it is due to the presence of such trade, that market get its dose of liquidity and price discovery. People who trade on Information are rationally correct in their way but people who trade on Noise are often caught at wrong side of the trade.

This paper tries to explore various facets of Noise ,it's effect on Financial Markets and also tries to elaborate the characteristics of Noise trader that differentiate them from that of Rational trader. The study has been organized to review some of the highly appreciated work on Noise. Firstly the word Noise in the context of Financial Market is explored. Various studies trying to uncover these recent developments of Behavioral Finance is covered. Various phenomena and happening in Financial Market that which cannot be explained by rational finance theories are discussed in this section.

After defining Noise to a considerable extant the studies that explore the effect of the presence of Noise Trader in asset pricing are discussed in this section .The existence of Noise Trader significantly changes the Volatility in asset price and also alters the volume.

The Noise Trader are assumed to be non rational participant of Financial Markets. There are certain characteristics of them which distinguish them from traders who are rational. Previous studies have tried to identify the habits, common biases and psychographic profile of Noise Trader

2. Review of Related Literature.

Though Behavioral Finance is a relatively new phenomenon but it has attracted the interest of various academicians. There has been considerable amount of research investigating the causes of mispricing and inefficiency in the market. The Noise Trader characteristics and symptoms of trading has also attracted a considerable amount of research. Some of the noticeable studies are referred in this review they are as follows—

2.1 What is Noise?

Black [1] (1986) in his presidential address to American Finance Association first coined the term ‘Noise’. He stated that Noise is present in almost every kind of Financial Market in which the trading takes place. He also asserted that large number of small event create a bigger Noise as compared to small number of large events. He further said that rational trader often trade on Information whereas Noise Trader think that Noise as Information and trade on that belief ,which often result in placing them on wrong side of trade. In his word “Noise make Financial Market possible also making them Imperfect”. If there would have been no Noise Traders then people will only hold the individual asset with them rather then trade them.

According to Jaffe and Winkler[2] (1976) traders who trade in speculative market are those who trade either to adjust their risk level or those who misperceive their forecasting ability or those who do not trade for rational reason like maximizing return for perceived level of risk.

Figleski[3] asserted that in the trading world there are two type of traders in Financial Market who have access to different type of information and they differs in their forecasting ability .This is to say that they trade on the basis of Noise to different extent.

Black[1] also explained that there are number of Noise trader in the market they are bound to loose money as compared to the information trader who does have real information on prices. The more Noise Trader will infect create more liquidity in the market. But the price of the security will be such that it is embedded with Noise as well as Information. In case of high speculative trading there will be more benefit to trade on the basis of Information. As the activity of Noise Trader increase it will result in the cumulative effect of the extent of Noise in the price. This will lead to a more aggressive activity by Information traders. The action of Information trader will lead back the price to its normal value in due course of time. These assertions are in agreement to Kyle's[4] Model who suggest that Noise Trader trade on Noise as if it was Information and the Noise trader presence instead of making market as inefficient will make the market more efficient as it will lead to more aggressive action by Information Trader which will bring the price back to normal with time.

DeLong, Shleifer, Summers and Waldman[5] (1990) model noise traders as those who misperceive the future value of the security. The reason for this misrepresentation of price are due to range of behavioral phenomena of Noise Trader like Overconfidence, anchoring, representativeness, conservatism, belief perseverance, and the availability bias.

As per Lewellen et al[6], small investors have no way to diversify their portfolio to a larger extend instead they buy and hold smaller number of stock based on the belief they make on the basis of Noise which they think is the information.

2.2 Effect of Noise Trader.

Friedman[7] (1953) and Fama[8] (1965) points out that the presence of Noise trader who act irrationally are met with rational trader who take benefit of the information they have and trade against the Noise Trader. In this process the rational trader bring the price of the security back to their fundamental value. Since the Noise Trader loose in this process they tend to disappear from the market in the due course of time. In contrast to this Figlewski [3] (1979) showed that it would take a reasonable long time for a rational trader or an arbitrageur to old is position against a Noise Trader and wait for true price to prevail while doing so if arbitrageur has to liquidate his position before the noise trader’s effect disappear he will be at a loss. Fear of this loss will limit the arbitrageur to take position against the Noise Traders. Further there are the chances that position take by a Noise Trader will move towards more extreme before finally diverting towards mean. Finally Delong et.al [5] claimed that the observation that arbitrage does not eliminate the effects of noise because noise itself creates risk.'

The Noise Trader takes an higher amount of risk as compared to the information trader and so is entitled to expect higher amount of return from is investment. According to De Long et al [5] the Noise Trader will be benefited only for bearing that amount of risk which he himself has not generated.

Shleifer and Summers (1990)[10] and Shleifer and Vishny[11] (1997) identified that limit to arbitrage exist due to the activities of Noise Trader since they do not let price converge o fundamental value.

Noise trade reflects irrational decision-making. Shiller[12] (1984; 1990), for example, argues that noise traders rely on “popular models” that are wrong and subject to fads.

Elena Asparouhova et al.[13] asserted that since the security price contains Noise component thus the return premium estimate obtained by ordinary least square regression methos are biased.

2.3 News or Noise –Before and After effect

It has been seen that that is a considerable movement in price on, before and after the event day (day on which official news is declared).Some of the research claims that market usually under react to the news initially Ikenberry, D. L., and S. Ramnath[14]. Whereas some of the studies suggest that there is a overreaction to the news as done by Michaely, R., R. H. Thaler, and Womack, K. L[15] and Agrawal, A., J. F. Jaffe, and G. N. Mandelker[16].Some of the study suggest that there is a momentum or drift in the price of the asset prior to event day as shown by Kothari and Warner[17] (2007).

2.4 Characteristics of Noise Trader.

Though there has been many study to identify the characteristics of Rational Investor or the Investor who trade on Information, it has been a difficult task to identify those attributes of Noise Trader that qualify him of becoming a Investor who do not take much of rational decision.Barnwell[18] tried to segment the group of Investors on the basis of lifestyle characteristics of Investor .She did so as a result of series of Focus Group Interview. She identified two group of Investor as Active and Passive. The characteristics of Active investor which she identified were they were Risk Taker, Non-Conformist (low dress consciousness) they had high self confidence and were heavy user of credit whereas Passive Investor were just opposite to the active Investor on the basis of mentioned characteristics.

Noise Trader are those who participitate in financial market because they may wish to speculate on the direction of the market, or may be they have time varying liquidity needs. Most of these traders have very less price sensitivity.

3.Conclusion:

The unexplained anomalies of Financial Market have lead the world to believe in the existence of Noise Trader. The Noise trader model of Financial Market assumes them to be existing with that of Information trader. They trade on Noise by assuming it to be as good as Information. While doing so they provide liquidity to market while making it imperfect for the rational theory to hold. The characteristics might be that they are active trader and are also entitled to higher expected return as they are ready to take a very high amount of Risk.

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