

## **Investor Type and Financial Market Anomalies: A Comparison of Individual, Institutional and Foreign Investors and Role of Their Behaviors in Investing Decisions**

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**Abstract:** The basic purpose of this paper is to identify the relationship and link between investor behavior and financial market anomalies. The literature reveals that institutional investors and foreign investors outperform individual investors and local investors due to the advantage of institutional investor sophistication. Additionally, the actions of individual investors are considered as contrarian indicators by the institutional investors. This conceptual framework enhances the knowledge and information for the understanding of the stock market's ups and downs in their shares and providing the awareness for such kind of sudden and unpredictable changes and behavior of the stock markets based on the individual investor behavior and institutional investor behavior as well as on the basis of domestic and foreign investor behavior. The paper also explains that either mentioned investor behaviors have a direct or indirect impact of stock market change or the change compels the investor to behave in specific ways. The paper explains that an individual investor performs poorly as compared to institutional investors because of having less information and sophistication. Individual investor behavior, as identified in most of the research findings, is the reason of the existence of stock market anomalies. The most compelling factors behind stock market anomalies are investor overconfidence, overreaction, overestimation, investor biased behavior and investor's less sophistication level. Therefore it may be inferred that investor behavior forms stock market anomalies. Another finding of the research is that local investors are feeling frustrated to invest in the stock markets due to irrationality and lack of information. Thus institutional and foreign investors are playing well and maximizing their wealth.

**Key words:** Market anomalies • Financial markets • Stock markets • Investor behavior • Psychology  
• Individual investors • Institutional investors

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### **INTRODUCTION**

Investor behavior is a very complex financial market phenomenon which has remained the focus of the past as well as recent capital market research. Investor behavior has been studied from the perspective of traditional finance as well as from the perspectives of behavioral finance. The investor behavior has also been studied from the perspectives of individual investors and institutional investors and also from the perspectives of foreign investors and domestic investors.

This review paper explains the behaviour of individual and institutional investors in financial capital markets. The paper also highlights the differences in

behaviours of foreign and domestic investors indicating that the foreign investors have more experience and sophistication as compared to domestic individual investors thus outperforming the performance of individual domestic investors. The paper also reviews the stock market anomalies with respect to traditional finance and behavioural finance.

The 2<sup>nd</sup> section of this paper describes behaviour of different types of investors. Section 3 delineates major anomalies in the stock market and their types. Section 4<sup>th</sup> will explain the impact of investor behaviour on stock market anomalies. While section 5<sup>th</sup> discusses the relationship between investor behaviour and stock market anomalies indicating if the investor behaviour is

the cause of anomalies or anomaly frame investor behaviour. And the last section finalizes the whole debate.

**Investor Behavior:** Investor behavior is a very complex financial market phenomenon which has remained the focus of the past as well as recent capital market research. Investor behavior has been studied from the perspective of traditional finance as well as from the perspectives of behavioral finance. Most of the research studies investigated the behavior of institutional and individual investors. In contrast to psychological theories regarding investor behaviour, the modern finance theories emphasize on rational behaviour to maximize wealth.

Investment selection decisions are made by considering and comparing risk and return profile of potential investment opportunities. More recently, research in psychology and behavioural finance has suggested attitudes to financial and investment decisions may also be affected by internal behavioural factors, such as an individual's knowledge of themselves and external behavioural factors, such as the way an investment decision is presented or framed [1, 2]. Theories of investor behavior try to explain how investors behave either rationally or irrationally and how these behaviors differ from one investor to another investor based on the same information content [3].

**Individual and Institutional Investor Behavior:** There are research studies that have investigated whether investor trading behaviors are influenced more by information about values or by psychological biases. Two categories of theoretical trading models have been developed to explain the two potential influences of behavior. The claim of these information based model is that investor trades on the basis of informational advantage.

Another research concluded that foreign and institutional investors like banks, securities firms outperform over the individual and local investor [4]. The results also indicate that investor's current trading behavior is influenced by the feedback from past trading. That is higher returns in past trading will result in a higher degree of buying and vice versa.

According to Grinblatt and Keloharju, [3] trading behavior of foreign investors is based on momentum indicators. Foreign investors tend to be well capitalized foreign financial institutions with a long history of successful investment in other stock markets. These investors buy past winning stocks and sell past losing stocks. This behavior is contrary from the perspective of

domestic investors. The research also indicated that portfolio of foreign investors outperformed the portfolio of domestic investors indicating the relationship between investor sophistication and performance [3].

Grinblatt and Keloharju, [5] found that Finnish investor's behavior is more likely to be influenced by the firm location and, firm language and culture of the chief executives of the firm. The findings of their research indicated that investors prefers trading of those Finnish firms' stocks, which communicates in their native language, located closer to them and having a CEO of the same cultural background. The impact of distance, language and culture is less important among the most investment knowledge able institutions than among both households and less informed institutions [5].

According to Bondt, [6] behavior of small individual investors who manage their own equity portfolios is reflected as (1) small investors discover raw patterns in past price movements, (2) share popular models of value, (3) are not properly diversified and (4) trade in suboptimal ways [6].

HarlessandPeterson, [7] investigated the investor behavior regarding the delay in extracting themselves from funds with predictably poor performance and how they select such type of funds in first place. The study's empirical results suggest funds with poor performance can endure because, in the aggregate, holdings in mutual funds are partially (and very slowly) adjusted and investors choose funds on the basis of recent returns without adjusting for differential risk.

As the representativeness heuristic suggests, investors anchor judgments of future fund performance on the extremeness of previous returns then insufficiently adjust their judgment for the predictive validity of the return information. In the eye of investors, returns generated by mutual funds in the past can be the best predictor of future performance of these funds, if they ignore the costs and risks associated with these funds [7].

By utilizing conjoint methods of investigation of results, which has at one time been utilized as a part of non-financial item decision research, Murphy and Soutar, [8] explored the traits which have an impact on the behavior of individual investors, when they settle on a choice to purchase financial products. They found that the mainstream of individual investors were not much concerned with the phenomenon of speculation, as the normally majority of individual investors were long term investors. In order to take the decision to buy a particular stock, for them the related financial indicators were P/E ratio and Dividend announced by that particular firm.

But the most relevant measures were recent ups and downs in share prices and activities of the management of the firm [8].

The modern finance theories emphasize on rational behavior to maximize wealth. Investment selection decisions are made by considering and comparing risk and return profile of potential investment opportunities. More recently, research behavioral finance and psychology has found that attitudes to financial and investment decisions may also be affected by internal behavioral factors, such as an individual's knowledge of themselves and external behavioral factors, such as the way an investment decision is presented or framed [1, 2].

Shapira and Venezia, [9] investigated the disposition effect for individual investors and professional investors in Israeli brokerage houses. The results indicated that both the individual and professional investors behave in a similar way showing the disposition effect-selling early the winners and holding the losses for long to avoid the losses. However, the disposition effect is stronger for individual investors [9].

#### **Investor Behavior and Financial Market Anomalies:**

Literary meaning of an anomaly is a strange or unusual occurrence. Frankfurter and McGoun, [10] define the term anomaly as abnormality or a divergence from the expectations or normal circumstances. Anomaly is a term which by nature is general and is used in many disciplines. It applies to some fundamental innovation of fact or a surprise against the expectations from any theory, model or hypothesis [10] Anomalies are a phenomenon of inefficient financial markets; some anomalies arise temporarily and then disappear, while others occur repeatedly.

Tversky and Kahneman, [11] defined market anomalies as "An anomaly is a deviation from the presently accepted paradigms that are too widespread to be ignored, too systematic to be dismissed as random error and too fundamental to be accommodated by relaxing the normative system". While traditional finance defines anomaly as the deviation from normal behavior [12, 13].

#### **Categories of some of the most common anomalies as follows:**

- Public event-based return predictability.
- Momentum anomalies for short-term periods for individual stocks and the market as a whole.

- Long-term reversal anomaly.
- High volatility of asset prices.
- Short-run post-earnings announcement stock price "drift" in the direction indicated by the earnings surprise.

### **DISCUSSION**

The purpose of the paper is to explain the relationship between investor behavior and the deviation in the stock market as it is mentioned in the model (Fig. 1) that individual investor behavior is the major cause of these major anomalies and variations in their time span, their frequency of occurrence and impact on local investor and ultimately beneficial for institutional and foreign investors.

Investor overconfidence and a variation in confidence arising from the biased self - attribution is the cause of these anomalies. Overconfidence plays main role in the creation of these anomalies. The evidence that the investor overconfidence is the cause of these anomalies is derived from a large body of literature generated from cognitive psychological experiments and surveys which shows that individuals become overconfident and overestimate their own capabilities in various decision situations.

In financial markets, investors and analysts use average as a representative figure to generate information for trading purposes, like the use of a variety of ways and differences in extent of skills and competencies, while executing some phenomena such as analysis of financial statements of a particular firm, interview of the management and verification of rumors. This overconfidence leads to underestimation of errors in the self generated information. The investor will undervalue his forecast errors, while identifying the importance of subsisting info that others overlook. If he is brasher about signals or assessments with which he has greater personal involvement, he will tend to be overconfident about the information he has generated but not about public signals [13].

Bartov, Radhakrishnan and Krinsky, [14] investigated the effects of investor sophistication on post earnings announcement drifts anomaly by taking the institutional ownership i.e. the proportion of institutional investor ownership, as a proxy variable for investor sophistication. Shares held by institutional investors, a variable used by prior research to proxy for investor sophistication.

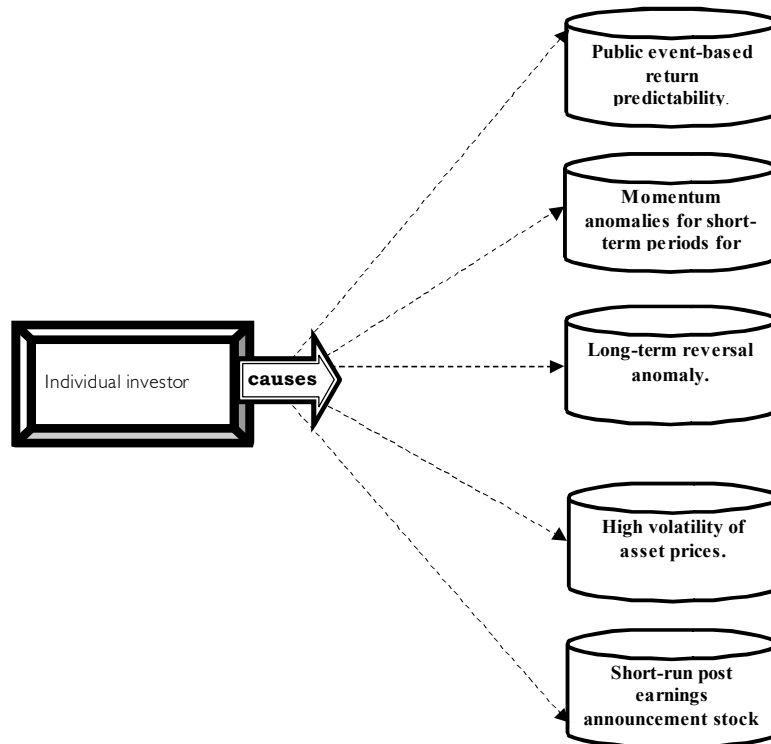


Fig. 1: Financial market anomalies caused by investor behavior.

The results reveal that the higher the proportion of institutional holdings variable the lesser the post-announcement abnormal returns. The findings also show that other variables like traditional proxies for transaction costs (i.e., Trading volume, stock price) as well as firm size adds small incremental power to cause post-announcement abnormal returns anomaly when institutional holdings are an explanatory variable. Considering the institutional ownership as a valid proxy for investor sophistication, it may be inferred from these findings that the trading activity of unsophisticated investors or individual investor behavior makes it possible the predictability of stock returns after earnings announcements causing the post earnings announcement drift anomaly [14].

Moreover, Bondt and Thaler, [15] tested their formulated hypothesis and found that that investor overreaction leads to successful contrarian strategies. There is substantial evidence in the psychological literature that individuals tend to overweight recent data in making forecasts and judgments [16, 17].

Due to the observance and the presence of this type of behavior in financial markets, mean reverting stock market anomalies occur from those stocks with which extremely good or bad returns in the past are attached.

The fact that the stock returns on Monday are negative, on average, the reason behind this fact is that the Monday returns have relations with the returns in prior trading sessions being nearly 80% of the time the returns negative by 0.61 when the returns on the previous trading day are negative and being the returns positive by 0.11 if the returns on the previous trading session are positive. The trading behavior of individual investors appears to be at least one factor contributing to this pattern. It was observed that individual investors are more involved in selling their stocks on Mondays and the one reason behind this active selling process is bad news in the market [18].

Brav and Heaton, [19] compare financial anomalies based on two competing theories. The first type is "behavioral" theories built on investor irrationality and the second type "rational structural uncertainty" theories built on incomplete information about the structure of the economic environment. They find that although if irrationality generates financial anomalies, their disappearance still may depend on rational learning and the ability of rational arbitrageurs for observed price patterns. [19] Therefore, this evidence suggests that the irrational investor behavior is one of the causes of stock market anomalies.

Long term investor overreaction anomaly was found by Stock, [20] and for this purpose he empirically tested the data of stock markets of Germany. The results also indicated that in financial market prices depart or deviate temporarily from their fundamental values due to the investor overreaction to new information regarding equity securities. [20]. Additionally Wouters, [21] conferred that investor optimism is the cause of value premium, which is caused by investors' optimism instead of investor's pessimism [21].

### CONCLUSION

Finally, according to Wouters, [21] the question whether anomalies can be explained by rational or behavioral explanations is difficult to answer yet. However, based on several research findings it implies that investors are subject to biases and these behavioral biases become the causes of stock market anomalies. Since investor behavior is different in the context of different variables such as emotions, reactions, estimation, judgment or rationality, they can influence investor decision making and then investor decisions lead to stock market anomalies. Institutional investors and foreign investors outperform individual investors and local investors due to the advantage of institutional investor sophistication.

Additionally, the actions of individual investors are considered as contrarian indicators by the institutional investors. Individual investor behavior, as identified in most of the research findings, is the reason of the existence of stock market anomalies. The most compelling factors behind stock market anomalies are investor overconfidence, overreaction, overestimation, investor biased behavior and investor's less sophistication level. Therefore, it may be inferred that investor behavior forms stock market anomalies.

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