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**FINANCIAL MARKET ANOMALIES: A REVIEW**

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**ABSTRACT**

*Anomalies are considered as stranger or unusual occurrence in non-investing groups but in case of investor's world, it is considered as the situation in which the market performs just opposite to the notion of efficient market. In the present finance world, information are available rationally and all the countries whether developed or developing, are exploiting the advantages of information and communication technology to perform more efficiently in the competitive market. Usages of ICT have enabled all the associated investors to use all the information available in the market on time. There are many anomalies in, some occur once only and disappear, while many anomalies are observed continuously. Many investors attempt to make large profit by this stranger behavior of the market, but this is a very risky way of making profit from. The present study attempted to review all the major anomalies which are observed in the financial market. The study considered many existing literatures and discussed different anomalies of financial market. The give discussion would help to all the investors while taking investment decision in uncertainty.*

**Keywords:** *Financial market, Capital market, Stock market anomalies, Finance, Market Efficiency.*

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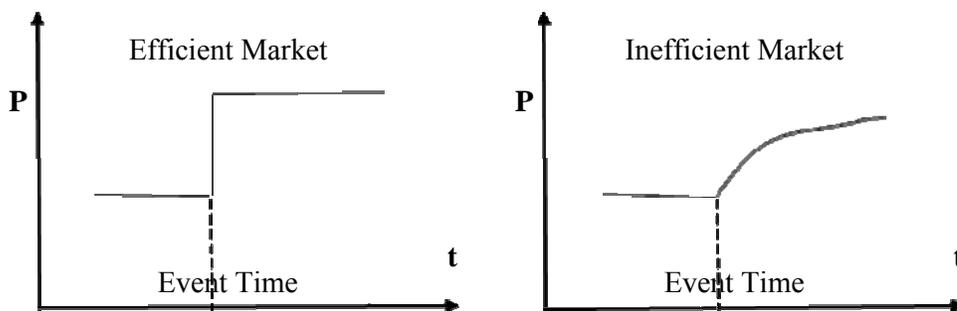
**INTRODUCTION**

Market anomalies are cross sectional in nature and observed in time series patterns in any security returns which are not predicted by available theories. Financial market anomalies were initially discovered from empirical tests which were rely on a joint null hypothesis to know that capital market is informationally efficient and its returns behave in respect of predicated equilibrium model. In case of rejection of null hypothesis, it can not be attributed to rejection of either branch of hypothesis. Anomalies are empirical observations which do not arises as per the pre-specified/ expected order; these empirical results never follow any trends according to existing theories of asset pricing behavior. Predictions of prices and making of unusual profits are not an easy task and for this reason different researchers share varying views about the movements. Some are in favor of the Efficient Market theory while others contradict it on account of its anomalies. There are several studies that statistically define the relation using autocorrelation, correlation and other techniques, between volumes and prices. In view of so many researches and their conclusions, there have been certain misconceptions about the Efficient market hypothesis.

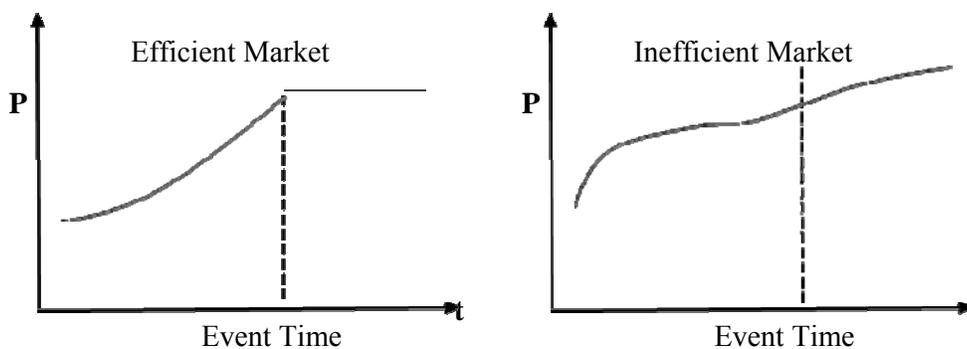
Thus, efficiency of markets although indicates that abnormal gains cannot be made by investments in stock markets. It shows an inclination towards the strategy of “Value Investing” used by the one of the renowned money makers from the stock markets, “Warren Buffet”. The concept proposes buy and hold strategy for stocks. Also, though efficient market theory suggests that prices reflect all available information does not imply that there exists no opportunity to make profits from stock markets. However, it is important to understand the level of efficiency of stock market and take investment decisions in line with them. Therefore, understanding the market efficiency is prudence on the part of investor which would enable him to explore the inefficiencies and make extra profits.

Professor Eugene Fama, defined market efficiency as follows:

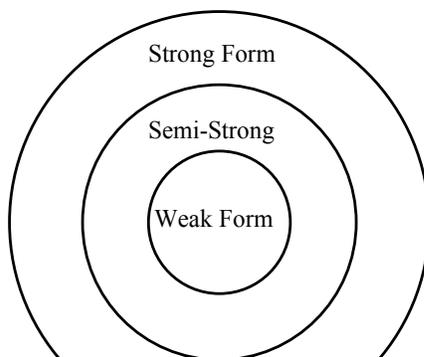
*"In an efficient market, competition among the many intelligent participants leads to a situation where, at any point in time, actual prices of individual securities already reflect the effects of information based both on events that have already occurred and on events which, as of now, the market expects to take place in the future. In other words, in an efficient market at any point in time the actual price of a security will be a good estimate of its intrinsic value."* Further Professor Eugene Fama, defined market efficiency in his research work as follows:



The diagram illustrates the reaction of the market in case of an unanticipated favorable event. If the markets were efficient, the markets would quickly move up as the case given in the first diagram. However, if the markets are inefficient, the markets will slowly adjust to the information as specified in the second diagram. However, if the event was anticipated one the markets would react as exemplified in the below mentioned diagram.



If the market were anticipated the prices would drift up sometime before the event and would likely stabilise on the event date. However, in case of inefficient markets, the price stabilisation mechanism would take place sometime after the event has taken place. Fama suggested three forms of markets classified on the basis of efficiency. They are viz, weak form of efficiency, semi-strong of efficiency and strong form of efficiency.



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**LITERATURE REVIEW**

All coins have two sides and so does the theories in capital markets. Mark Twain (1894) said, “*October. This is one of the peculiarly dangerous months to speculate in stocks in. The others are July, January, September, April, November, May, March, June, December, August and February.*” His statement indicated the unpredictability of the stock market. In other terms it may also be understood to be synonyms to the Random Walk Theory suggesting unpredictability and uncertainty in the stock market. Also, there are evidences with regard to emotions and human behavior holding a significant impact on stock prices. In 1956 the US psychologist Leon Festinger introduced a new concept in social psychology; the theory of cognitive dissonance (Festinger, Riecken and Schachter 1956). When two simultaneously held cognitions are inconsistent, this will produce a state of cognitive dissonance. Because the experience of dissonance is unpleasant, the person will strive to reduce it by changing their beliefs. Further studies justified the existence of non rational or rather behavioral impact on decisions taken in the stock market. Reference effect, overconfidence and framing effect were a few of the many aspects of behavioral finance which contradicted the Efficient Market Theory.

Cheung K. C. and Coutts (2001), with the use of variance test ratio concluded that Honk Kong Stock market stands for the weak form of efficiency. Poshakwale (2002) examined the random walk hypothesis for Indian stock markets using the conditional variance and GARCH model. He concluded the inefficiency of Indian stock market with respect to weak form of efficiency. Lima & Tabak (2004) studied the weak form of efficiency for Chinese, Hong Kong and Singapore Stock market. Dockery and Vergari (1997) used the variance test ratio and evidenced the weak form of efficiency for Budapest stock exchange. The study used the variance test ratio to and summarized that Hong Kong Stock market holds the weak form of efficiency and the Singapore stock market does not possess the traits of random walk. The Chinese stock market showed variability in results. Class A shares hold the random walk hypothesis but this is not true for class B shares.

Agrawal and Tandon (1994) investigates the five anomalies in eighteen countries and concludes that while the weekend effect is observed in only nine out of eighteen countries, month of the end effect is witnessed in almost all the countries. Although January effect is addressed in ten countries, it is found to be diminishing after the 1980's. Holiday effect is also prevalent in most of the countries.

There are certain favorable evidences which supported EMH. Such as, investment analysts and mutual funds were not found to beat the market despite of their technical and fundamental expertise on complexities that existed in the capital market. On the other hand, researchers had found anomalies to the Efficient Market Theory. Some of the anomalies are stated as “January effect”, “Monday effect”, “Holiday Effect”, “Small firm effect” and many more. The anomalies of weak form of efficiency are;

### **January Effect**

Researchers have found that stock returns appear to be extra ordinarily higher in January than in other months of the year. A tendency of unusually large positive rates of returns is generated for stocks during the first few trading days of the year. This effect is termed as January Effect. There are several reasons that are been explored for the same. The most relevant reasoning for this anomaly is that investors may sell securities in December in order to obtain tax deductions on capital losses at the end of the year and repurchase them in the beginning of the new year. This will abnormally drive the prices upward. However, there exists a lacuna in the explanation as it does not take into account the institutional investors which are exempt from tax liabilities. Another, reasoning for the same is that portfolio managers book the year end profits for commissions and invest into safer investments for window dressing the portfolio. These institutions may buy stocks in December in such a case and avoid abnormal gains of investors. It is also related to the size effect since it is mostly small firms that outperform in January.

Wachtel (1942) observed frequent bullish tendencies from December to January in eleven of the fifteen years he studied. Boudreaux (1995) studied the monthly impact of stock returns over 6 countries and found that the effect holds true in Norway, Denmark and Germany. However, a negative monthly effect was noticed in Malaysia/Singapore. Chandra confirmed the prevalence of January effect in Indian stock market. Moosa (2007) studied the January effect using the rolling regression and observed that the this effect has been decreasing on the Dow Jones Index over the period of 1971-2005. On the contrary, he observed that the positive January effect has turned into a negative July effect. Another study by Agathee (2008) on the Mauritius Stock Market found the results consistent with the presence of the January effect but could not statistically prove the presence of any other month having predictable returns and thus confirmed to the efficient market hypothesis for the rest of the year.

### **Monday Effect**

The stock market world comprises of five days a week ranging from Monday to Friday. Monday is said to be the averaging day as it averages the returns of the week. Monday effect

is also termed as day of the week effect as Monday reflects the information in circulation on Saturday along with Information made available after Friday's working. Many studies have found that the returns on stocks are negative on Mondays' in comparison to other days of the week.

The stock market crash in 1987 plays a very significant role to understand the Monday effect. As EMH states that investors are rational and so a crash of 500 points in a day is not feasible. But, the scenario is opposite to what is been theoretically understood. The black Monday witnessed a fall of more than 20% in a day which does not indicate the rationality of investors. The fall is a result of difference in the asset price and the fundamental market value along with increasing federal budgetary and trade deficits, rising levels of inflation and many others. The investors were not rationale and had a long position despite of less value of stock. This clearly indicated the market inefficiency.

French (1980) was one of the early researchers who in his study suggested that returns on Monday were negative even though returns on other days were positive. Poshakwale (1996), examined the impact of week of the day effect on the Indian stock market, BSE and concluded results which suggested that Indian markets are not weak form efficient. Berument and Kiyamaz (2001) investigated on the S & P index for the period of 1993 to 1997 and found negative returns of Mondays along with high volatility on Fridays. Cho et. al. (2006) has evidenced Monday effect in several international indices such as the NASDAQ, the Russell 2000 and the CRSP. However, a reversed trend was observed in DJIA and S & P 500 post 1987. Based on daily stock prices from 1963 to 1985 Keim found that returns are higher on Fridays and lower on Mondays than should be expected. Ho et. al. (2011) in a study concluded that in Taiwan stocks of tourism industry are unaffected by Monday effect. The study is not found to be consistent with the previous ones.

### **Holiday Effects**

Stocks are found to generate good returns on the day preceding a holiday in comparison to the day after the holiday. Holiday effects have been documented over time and across countries. Cao et. al. (2009) documented the pre holiday impact on the New Zealand stock market and reported that this effect has been increasing in the country which is contrary to other studies across the world. Also, it has been largely found that small companies are more prone to hold such an impact.

### **Momentum Effect**

Stock prices are expected to move the same direction either upward or downwards as the case may be and thus the investors accordingly take a long or a short position. The expectation of

investors is based on the momentum effect. Hong et. al. (1999) in his study summarized that bad news floats slowly among the investors which make the price movements to be slow and thus a momentum effect is been developed. Fong et. al. (2003) tested the Momentum effect in to conclude the commonness of Momentum effect on stock markets. The research adds that, “rational asset pricing model which assumes investors are non-satiated and risk averse will be unable to explain momentum. Models that incorporate behavioral biases of investors may offer a more promising alternative.”

#### **Small Firm Effects**

The theory holds that small firms have higher growth potential and opportunities than larger firms and thus small companies are expected to outperform large companies. The size of the company implies the market capitalization of that particular company. Small cap companies also tend to have a more volatile business environment, and the  $\alpha$  correction of problems - such as the correction of a funding deficiency - can lead to a large price appreciation. Finally, small cap stocks tend to have lower stock prices, and these lower prices mean that price appreciations tend to be larger than those found among large cap stocks. This market anomaly is explained by the three factor model proposed by Fama and French. A factor model that expands on the capital asset pricing model (CAPM) by adding size and value factors in addition to the market risk factor in CAPM. This model considers the fact that value and small cap stocks outperform markets on a regular basis. By including these two additional factors, the model adjusts for the out performance tendency, which is thought to make it a better tool for evaluating manager performance.

#### **Standard & Poor's (S&P) Index effect**

The impact of inclusion or exclusion of a company on its stock prices is said to be the S&P index effect. It suggests that there would be a symmetrical upward or downward trend in prices on addition or deletion (respectively) of stocks from S&P index. After October, 1989 S&P made certain policy changes and started to announce the changes a week prior to the effective date. Lynch and Mendenhall studied the impact of S&P effect in the duration of 1990-1995. He determined a post announcement drift in prices of stocks in either direction along with a phenomenal return back from the trend after the effective date of execution of activity. Chen et. al. (2004) conducted a study on the movement of stocks with respect to S&P Index effect and found the results to be inconsistent with the anomaly. The authors of reasoned out increasing awareness among customers is a result of asymmetric rise and fall of prices.

#### **Turn-of-the-Month Effect**

The tendency of stock markets to generate higher returns at the end of the month and first few beginning days of the month is known as turn of the month effect or commonly called as “TOM”. This is mainly attributed to cash flows been generated from salaries and pension funds during this period. Dickinson and Peterson, (1995) suggest that both the weekend and turn-of-the-month effects are at least partially anticipated by investors. Reschenhofer (2010), corroborates on turn of the month effect. Kunkel et. al. studies stock markets of nineteen countries and confirms TOM effect through parametric and non parametric tests among 15 of these nations. Thus, proving an international existence of TOM effect.

### **Price Earnings effect**

Securities with low Price Earnings ratio are expected to generate high returns in comparison to companies with a high price earnings ratio. This anomaly evidences inconsistency with the semi strong form of efficiency according to EMH. Kelly et. al. (2008), tested the Australian stock market on high versus low PE ratio and found that Australian stock markets do not exhibit weak form of efficiency.

### **CONCLUSION**

There are several other effects which may be based on economic events, yearly, daily, fundamental or technical. Researchers have undertaken several event studies to understand the impact of economic events such as Post-announcement Drift which implies that prices and returns on securities are predictable after this period other daily effects may be such as the Beginning-of-Day Effect and End-of-day Effect. Beginning of the Day effect implies that stock prices usually rise the first 45 minutes of the trading day. While, End of the day effect suggests that stock prices usually rise near the close of the trading day.

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