

Good example of
research paper on
does efficient market
hypothesis still owns
a d...

[Business](#), [Marketing](#)



Abstract:

The research paper deals with the Efficient Market Hypothesis(EMH) and the related market anomalies and to find that despite there has been extensive research conducted in support of EMH, why is it possible that investors like Warren Buffet and many others have consistently beaten the market year after year and have made billions in profit and if markets are efficient why does the stock prices deviate from their value. For the purpose of this research, we will include a brief introduction of EMH, existing literature review in support of EMH and will then finally proceed to conduct our analysis to see if the market anomalies are responsible for the deviation in stock prices that lead to irrelevance of Efficient Market Hypothesis.

Introduction:

Efficient Market Hypothesis is a finance theory which asserts that it is impossible for the investors to beat the market as the capital market is informationally efficient and the current price of a security fully, quickly and rationally reflects all the available information about the security. Thus, even with the expert stock selection or market timing, the investor cannot earn any arbitrage profit and the only possible way for him to earn superior returns is by investing in high risk securities. Till now we have understood that the core conclusion of efficient market hypothesis is that the market prices should reflect all the available information. However, there are different kinds of information that influence the security values. Thus, there are three versions of EMH, which are used by the financial researchers and each version depends upon the term “all available information”.

Weak Form market Efficiency:

The weak form of the efficient market hypothesis (EMH) asserts that the current security prices fully reflect the currently available security market data. Hence, the past price and market information will have no predictive power about the future direction of security prices as all the price effects would have already been incorporated into the stock prices and the future price changes will be irrespective from one period to the other. Thus, no investor or security analyst can earn excess returns just by selecting the stocks by analyzing the past prices of the security as the current stock prices incorporates all the publicly available information and no one can earn profit from using information that everybody knows. Many financial analyst attempt to generate profits by studying exactly what this hypothesis asserts is of no value - past stock price series and trading volume data. This technique is called technical analysis.

Semi-Strong form market efficiency:

The semi-strong form of the efficient market hypothesis (EMH) holds that the security prices rapidly adjust without bias to the arrival of all new public information. As such, the current security prices fully reflect all the publicly available information. The semi strong form says that the security prices include all the information and non-market information available to the public. Important to note, that, here the term public information refers not only the past prices of the security but also the data reported in the annual filings of the company and also the expectation of stock prices in relation to the macroeconomic factors. Thus, in order to earn excess returns, investors

or security analyst has to collect information away from public filings or databases, which requires lot of time and efforts. The implication is that an investor cannot achieve positive risk –adjusted returns on average by using fundamental analysis.

Strong form market efficiency:

The strong form of the EMH states that the security prices fully reflects all the information from both the public and private sources. The strong form includes all the types of information; past security market information, public information and even private information. This means that since no group of investor will have exclusive access to the information that could affect the stock price, hence, none should be able to earn excess returns. Important to note that the strong form market efficiency claims that the security prices reflects the insider information also and thus any individual, let's say, member of research department will also be not able to earn excess returns if he has some exclusive research information.

Background:

The origin of the Efficient Market Hypothesis is credited to Eugene Fama and Paul Samuelson in the 1960's. These researchers through their milestone research concluded that the stock market prices follow a random walk. Eugene Fama was the first researcher to use the term efficient markets' and conclude that there are evidences in support of technical and fundamental analysis and concluded that the stock prices fully reflect all the available information. His research was based on the measurement of the statistical properties of stock prices and in resolving the debate between the technical

analysis and fundamental analysis and was later termed as 'Random Walk Hypothesis'. On the other hand, Samuelson came up with the same conclusion about his research work that the stock prices are unforecastable as all the market information and past prices are fully incorporated into it. He conducted his research through a series of linear programming solutions to spatial pricing model with no uncertainty.

Motivation:

Till now we can have following conclusion about EMH:

a) There are three types of market efficiencies:

- weak form;
- semi-strong form;
- strong efficiency.

b) Each of the market efficiency provides following characteristic:

- Markets are efficient and respond very rapidly to the new information
- If the share price is a reflection of all the available information, it is impossible for the investors to forecast the stock prices
- It is impossible to predict market movement other than randomly.

So, if the EMH theory is a dominant paradigm in the finance literature, then the point is how stock prices deviate from their fair value and how is it possible that investors like Warren Buffet are getting rich and rich every year. The critiques of the EMH theory claim that there is no such thing as Efficient Market Theory. Hence, in my opinion, there does not seem to be any other theory in finance that is so debatable among its proponents and critiques. For Instance, the originator of EMH theory still disregards anything

as Behavioral Finance and has gained a strong support for his efficient market theory. Harvard financial economist Michael Jensen writes “ there is no other proposition in economics which has more solid empirical evidence supporting it than the Efficient Market Hypothesis”. On the other hand, the renowned investor, Peter Lynch claims “ Efficient markets? That’s a bunch of junk, crazy stuff”. Thus, we strongly feel to know the if the paradigms of EMH hypothesis still holds or not and also as what is the current state of EMH. However, before conducting an empirical research, in our next section we will look forward to the literature review over role of market anomalies and behavior finance in turning the EMH theory irrelevant.

Strength of research approach:

The most important and useful approach in this research is the simplicity of the topic itself. The paper has been sourced from resourceful publications and only the relevant literature evidences are discussed here. We did not find any difficulty in finding the resources for the discussion and thus, we were able to provide a meaningful conclusion at the end.

Limitation of research approach:

Amazingly, although the topic is interesting but since behavioral finance was more of a psychological attribute of a human being, we found it difficult to frame out the data to find the relationship between non-conscious risk and other variables. At the end, we decided to follow a unit stationary relationship between each of the dependant and independent variable.

Literature Review:

According to Fama's efficient market theory, with markets being efficient, it is impossible to predict the future prices of the stocks as the markets are fully efficient and all the information is fully incorporated into stock prices. Many researchers have found through their research that the stock prices could be consistently predicted using fundamentals as Dividend Yields, PE Ratio, Price/ Book Ratio, Size of the company etc. For Instance, Thaler used PE ratio and PB ratio to predict the stock prices(Thaler, 1999) and Campbell and Shiller(1988) used the solely the earning price ratio and found it as a powerful tool for the prediction of the stock return especially when the past earnings averaged over 10 years.

Surprisingly, the very first research on market anomalies were conducted during 1981 by Banz and Reinganum, in which they proved that size effect was a vital evidence against market efficiency. The researchers proved that the average stock returns of the smaller firm's portfolio were higher than that of larger firm's portfolio by an average of 10. 3% annually. Later, many other studies were conducted to test the size effect on market efficiency theory. Most notably were from the researchers like Arbel and Strebel's (1982) study about the neglected firm effect, and Amihud and Mendelson's (1986) study labeled liquidity effect. These two studies introduced for the very first time the relationship between the neglected firm effect and liquidity effect and proved that they both are highly related to the size effect. That is, because the information about the small firms is less available, they can be neglected by the institutional investors causing lower liquidity in these stocks. Thus, these non-brand names, less liquid, unpopular kind of

stocks may provide an abnormal return especially in January, thus turning market efficiency theory irrelevant.

Apart from size effect, an exclusive research was conducted by Ritter(1991) on the anomaly related to the negative performance of Initial Public Offerings(IPO). He conducted a research of over 1500 IPO's issued in USA during 1975 to 1984, found that if an investor bought from IPOs and held it for 3 years, his or her terminal value of the 1\$ purchased stock would be 1.3447\$ whereas his or her terminal value of the 1\$ worth of matching firms' stock became 1.6186\$. IPOs' underperformance was around 16.9%. Thus, another market anomaly was found to be in existence that disregarded the EMH theory relevance.

Apart from all the research theories conducted in favor of anomaly and criticizing the market efficiency, the most important study was conducted by DeBondt(1985) and Thaler(1987) on the overreaction anomaly. The term overreaction effect refers to the finding that the firms with poor stock returns over the three or five years(losers) have better subsequent returns than the firms that had high stock returns over the prior period. This pattern has been attributed to the investor overreaction to both unexpected good news and unexpected bad news.

Both the researchers, DeBondt and Thaler, investigated the performance of past losers and past winners and formed a portfolio consisting of top 50 performing stocks and top 50 losing stocks from NYSE during 1926-1982.

The researchers found that the losing stocks outperformed the winners by an average of 31.90% within the three-to-five year period, thus confirming the overreaction anomaly. Furthermore, just as the previous researchers, Arbel

and Strebels and Amihud and Mendelson's, they found that the abnormal returns for the losing portfolio were attained during the month of January. Later during 1995, researchers as Dreman and Barry(1995) also confirmed the overreaction and asserted a mispricing-correction hypothesis which is the process of the investors' correcting action of the over or under-valued prices (original misprice) through its fundamental value in the long run.

Research Data:

In order to conduct a research, we will try to find out a relationship between non-conscious risk and other behavioral attributes of an investor. Our research will be conducted on the relationship between non-conscious risk(Y) and the following variable factors below:

X1 – the desire to make decision by light of nature,

X2 - high (> LTL 3000) income.

X3 - the desire to frequently change the portfolio structure,

X4 - conscious risk,

X5 - decision to invest into an unprofitable project,

X6 - low (Statistical Results:

Relation Y to X1 Y to X2 Y to X3 Y to X4 Y to X5 Y to X6

CORREL 0. 52 0. 26 0. 51 0. 49 0. 68 0. 57

T value 7. 96 3. 51 7. 80 7. 36 12. 0 9. 12

Empirical Analysis:

The correlation between the dependant variable, i. e. Non-Conscious Risk and independent variable(from X1 to X6) signifies the strength of

relationship of each independent variable with dependant variable. Referring to the statistical result we can see a stochastic relationship between the dependant variable Y and all the other independent variables is very strong. The most strong relationship has been found between Y1 and X1 and Y and X5, while the least strong relationship is between Y and X2 which is equal to 0. 26. On the whole, all selected factors are statistically significant for the dependent variable Y.

Conclusion

Given the current state of the theoretical and empirical evidence for and against EMH, we can say that there is no consensus over dominance of EMH in the financial literature. It is very much visible that many market anomalies disturb the dominance of EMH theory. Referring to the above analysis, we can conclude that no researcher, even Eugene Fama cannot deny that anomalies are present in the financial markets. However, till now there is no concrete reason as how these anomalies are rising. We discussed many literature evidences that proved the presence of market anomalies and that proved that investors can beat the market and there is no relevance of efficient market hypothesis. However, it is important to note that although there is no perfect theory, but the overwhelming majority of empirical evidence supports the efficient market hypothesis. Many researchers although have proved that anomalies can be used to predict the market returns but those studies have failed to survive the test of time. Hence, the efficient markets hypothesis continues to be the best description of price movements in securities markets

Works Cited

- Brown, R. (2011). Market Efficiency. In C. Institute, Equity Investments (pp. 253-255). Boston: Custom.
- Daiva Jurevičienė, O. I. (2013). BEHAVIOURAL FINANCE: THEORY AND SURVEY. Vilnius Gediminas Technical University.
- Jonathan Clarke, T. J. Efficient Market Hypothesis.
- Lo, A. W. (2007). EFFICIENT MARKETS HYPOTHESIS.
- SCHWERT°, G. W. ANOMALIES AND MARKET EFFICIENCY. University of Rochester, and NBER.
- Sewell, M. (2011). History of Efficient Market Hypothesis.
- Fama, E. 1965a. The behavior of stock market prices. Journal of Business 38, 34-105.
- Fama, E. 1965b. Random walks in stock market prices. Financial Analysts Journal 21, 55-9.
- Cootner, P. 1964. The Random Character of Stock Market Prices. London: Risk Publications.
- Clarke, Jonathan, Tomas Jandik, and Gershon Mandelker. " The Efficient Markets Hypothesis." 1-23. University of Arkansas. 5 Feb. 2009